

BY ORDER OF THE COMMANDERS
AIR MOBILITY COMMAND (AMC)
AIR EDUCATION AND TRAINING COMMAND (AETC)
PACIFIC AIR FORCES (PACAF)
UNITED STATES AIR FORCES EUROPE (USAFE)
BY ORDER OF THE CHIEF
AIR NATIONAL GUARD (ANG)

MULTICOMMAND INSTRUCTION (MCI) 10-202
VOLUME 6

1 JANUARY 1997

Operations

C/KC-135 AIRCREW TRAINING PROGRAM
POLICIES, ORGANIZATIONS, AND ADMINISTRATION (PA)

»»»COMPLIANCE WITH THIS PUBLICATION IS MANDATORY«««

MCI 10-202 Volume 6, *Aircrew Training Program*, implements AFPD 10-2, *Readiness*. This instruction prescribes specific policy guidance for training crewmembers in US Air Force C/KC-135 aircraft. It establishes standards for qualification, mission qualification, continuation training, and upgrade training. It defines and establishes minimum training requirements necessary for crewmembers to complete their operational missions. Guidance applies to all C/KC-135 crewmembers, supervisors and training managers for which AMC is designated lead command per AFPD 10-9, *Lead Operating Command Weapon Systems*. This instruction applies to US Air Force Reserve units. Offices of collateral responsibility for this volume are HQ AETC/XOTA, DSN 487-4463; HQ AFRC/DOTA, DSN 497-1131; ANG/XOOM, DSN 223-9506; HQ PACAF/ DOTT, DSN 449-8822; and HQ USAFE/DOTO, DSN 480-6986. This instruction requires collecting and maintaining information protected by the Privacy Act of 1974, authorized by 37 U.S.C. 301a, Incentive Pay: Public Law 92-204 (Appropriations Act for 1973), Section 715; Public Law 93-570 (Appropriations Act for 1974); Public Law 93-294 (Aviation Career Incentive Act of 1974); Department of Defense (DoD) Directive 7730.57, Aviation Career Incentive Act and Required Annual Report; AFI 36-2212, *Flight Management*; and E.O. 9397. System of records notice F060 AF A, Air Force Operations Resource Management Systems (AFORMS) applies. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF REVISIONS

This instruction replaces MCI 10-202, volume 6 and incorporates changes recommended by AMC, other major commands (MAJCOM), units, the Command Curriculum Review Workshop, and AMC Training Review Panel. It also incorporates C/KC-135 definitions and abbreviations from MCI 10-202, Volume 1; establishes standardized ground and flight continuation training tables; and changes and standardizes training event codes.

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Supersedes MCI 10-202, Volume 6, 1 January 1996
OPR: HQ AMC/DOTK (Major)
Certified by: HQ AMC/DOT (Colonel Porter)
Editor: Mary Burns

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Chapter 1

POLICY AND ADMINISTRATION

1.1. General. This volume prescribes specific C/KC-135 pilot, navigator and boom operator (BO) training requirements. Training requirements are based on strategic and theater operational requirements in designed operational capability (DOC) statements.

1.1.1. This volume applies to all individuals operating KC-135 aircraft assigned or attached to AMC, AETC, PACAF, USAFE, ANG, and Air Force Reserve (AFRC) units. Command specific KC-135 training policy and special mission -135 training policy are published by each MAJCOM via bold print incorporated within this volume or collectively in chapter 7. ANG and AFRC are considered MAJCOMs for the purpose of this MCI.

1.1.1.1. Underlined paragraph numbers and codes in tables indicate those items/events which are standardized across AMC weapon systems.

1.1.2. Training Objective. The overall objective of the aircrew training program is to develop and maintain a high state of mission readiness for immediate and effective employment in exercises, peace-keeping operations, contingencies, and conventional or nuclear war.

1.1.3. Use of Flying Hours. We must use our training hours in a manner that demonstrates good stewardship of the taxpayers' money. We justify those hours on the basis of maintaining wartime readiness, and Congress and the public expect us to use them accordingly. Each training mission must be structured to achieve maximum training. Any by-product airlift opportunity resulting from training must not degrade the intended training in any way and must comply with applicable Department of Defense (DoD) instructions. Any use of flying training hours to accomplish other than direct training requirements must be approved by the appropriate numbered Air Force commander (ANG/CF for Air National Guard [ANG]). It is essential that all personnel at all levels prevent the misuse of air mobility resources as well as the perception of their misuse. EXCEPTION: The approval authority for Off-Station Training Flights is the Wing Commander. Commanders approving off station trainers will forward a copy of the planned itinerary to the appropriate NAF/DO (ANG/CF for Air National Guard, HQ AFRC/DOOM for Air Force Reserve), AMC/DOT, and TACC/XOOM. (USAFE units will forward the planned itinerary to NAF/DO only).

1.1.3.1. Training on Operational Missions. Unless specifically prohibited or restricted by weapon system operating procedures or specific theater operations order (OPORD), the operations group commander or air reserve component (ARC) equivalent may allow upgrade or special qualification training on operational missions. Commanders will ensure the training will not impact mission effectiveness and the crewmember receiving training is under the supervision of an instructor of like specialty.

1.2. Responsibilities:

1.2.1. AMC Headquarters. AMC is the OPR for training policy in coordination with other MAJCOMs and applicable aircrew training system (ATS) contractors. AMC is responsible for training course requirements, training tasks, and quota control in coordination with other headquarters as follows:

1.2.1.1. Courses. The AMC Director of Operations (DO), in coordination with other MAJCOMs, approves courses. Send proposals for amending existing course prerequisites or deleting obsolete courses through the appropriate headquarters to HQ AMC/DOT for approval. HQ AMC/DOT will process the approved changes in coordination with the AFCAT 36-2223, *USAF Formal Schools*, office of primary responsibility (OPR).

1.2.1.2. Command Curriculum Review Workshop (CCRW). HQ AMC/DOT hosts a biennial CCRW. The CCRW reviews all training programs for currency, applicability, compliance and effectiveness. Attendees should include training representatives from HQ AMC/DOT/SG, AMWC/WCOX, AETC, AFRC, ANG, PACAF, USAFE, Air Force Special Operations Command (AFSOC), Air Force Flight Standards Agency (AFFSA), curriculum developers, formal schools, numbered Air Force (NAF) training and standardization offices, selected unit representatives, and ATS contractors.

1.2.1.3. Programmed Flying Training (PFT). HQ AMC/DOT determines the number of training quotas available and allocates quotas according to AFCAT 36-2223 in coordination with other MAJCOMs, users, and applicable ATS contractors. HQ AETC/XOT (or designated representative) publishes PFT pamphlets and, if required, amends pamphlets through change notifications in coordination with respective training managers.

1.2.1.4. AMC units will send projected PFT requirements to HQ AMC/DOT. Other units (including ANG and AFRC) will send projected PFT requirements to HQ AMC/DOT through their parent MAJCOMs.

1.2.2. Other MAJCOMs. MAJCOMs will provide policy and guidance in order for units to develop their respective training programs. MAJCOM unique training requirements will be forwarded by the MAJCOM to HQ AMC/DOT as necessary.

1.2.2.1. Supplements to MCI 10-202, Volume 6. MAJCOM specific guidance may be published in chapter 7, however, the specific guidance may not be less restrictive than the guidance in this instruction.

1.2.2.2. Exceptions to guidance in this instruction and attachments, may be annotated by "**EXCEPTION:** ..., " or "N/A" or "not applicable...", e.g., "N/A" or "not applicable for ARC, ANG, or AFRC."

1.2.3. The KC-135 Aircrew Training System (ATS) contractor is responsible for all academic and training device instruction at the formal school and all KC-135 ATS sites. This responsibility includes developing, updating and publishing courseware and the formal school syllabus in accordance with the ATS contract. The syllabus will be reviewed annually and updated as required.

1.2.4. The 97th Operations Group (OG) is responsible for conducting all flight training at the formal school. The 97th Operational Support Squadron (OSS)/DOT will publish a graduate summary report within 30 working days of each class completion.

1.2.5. Unit Operations Groups. The operations group will convene a training review panel (TRP). The operations group will determine frequency, format and content of the meetings. The TRP should review staff and aircrew management actions necessary to complete the squadron's flight and ground training programs. **(USAFE units provide TRP minutes to NAF DOT and HQ USAF/DOTO. End of training cycle TRP minutes will include end-of-cycle training deficiencies and OG/CC waivers given for semi-annual continuation training.)**

1.2.5.1. The operations group will establish procedures with the servicing military personnel flight (MPF) for individual counseling and personnel system updates for the active duty service commitment (ADSC) incurred (**not applicable for ARC**). Training conducted according to this instruction that is intended to result in initial qualification, requalification, or upgrade in a crew position will result in an ADSC according to AFI 36-2107, *Active Duty Service Commitments (ADSC) and Specified Period of Time Contracts (SPTC)*, and AFCAT 36-2223. Requalification includes training for loss of currency exceeding one year. The ADSC only applies to basic requalification in the aircraft, not subsequent in-unit requalification to a crew qualification previously held in that aircraft, such as aircraft commander, or instructor (formal school requalification will incur an ADSC).

1.2.5.2. The operations group, in coordination with the flying squadrons, will determine the functions and responsibilities of the operations support squadron (OSS) training flight. Any flight commander training functions stipulated in this volume may also be performed by appropriate OSS training flight personnel. (N/A ARC). For USAF, training flights are in the flying squadron.

1.2.6. Squadrons. As a general rule, training management is at the squadron or detachment level; however, the wing or operations group commander is ultimately responsible for squadron training programs.

1.2.6.1. Squadron commanders will ensure aircrew members complete training in a timely manner. Failure to reasonably progress mandates action for removal if appropriate.

1.2.6.2. Ensure formal school post-graduate questionnaires are accomplished and returned to the formal schools. A copy of the questionnaire answer form will be retained by the gaining squadron for one year after completion of formal school training.

1.2.7. Flight commanders are responsible for continuity and quality of training for crewmembers within their flights.

1.3. Terms:

- 1.3.1. Academic training. A course of instruction that includes, but is not limited to, classroom instruction related to aircraft systems and operation, flight characteristics and techniques, performance, normal procedures, abnormal procedures, and emergency procedures. To adequately prepare students, academic courses should be completed prior to simulator or flight training.
- 1.3.2. Aircraft commander (AC). Pilot who has been certified to perform "pilot-in-command" duties.
- 1.3.3. Aircraft systems refresher. Aircraft and crew position unique systems refresher courses.
- 1.3.4. AR mission. Flight that involves AR procedures as a tanker or receiver aircraft.
- 1.3.5. Air Reserve Component (ARC). ANG and AFRC units and aircrews, both associate and unit-equipped.
- 1.3.6. Aircrew training device (ATD). Includes cockpit procedures trainer, boom operator part task trainer, weapons systems trainer, operational flight trainer, celestial training device, table top navigation and rendezvous trainer, cargo loading trainer, and other flight simulators.
- 1.3.7. Aircrew training system (ATS). Integrated qualification, upgrade, and continuation training program for crewmembers. Civilian contractors conduct most academic and ATD training: Air Force conducts all flight training.
- 1.3.8. Annual. Training required once every calendar year.
- 1.3.9. Basic qualified. Aircrew member who has successfully completed an inflight evaluation but is not mission qualified in his or her assigned aircraft.
- 1.3.10. Biennial. Training required once every two calendar years.
- 1.3.11. Boom operator (BO). Crewmember qualified in boom operator duties.
- 1.3.12. Communication systems operator (CSO). Crewmember fully qualified to perform all communication systems operator functions.
- 1.3.13. Communications security (COMSEC) aid. COMSEC material, other than equipment or devices, that assists in securing communications and which is required in the production, operation, or maintenance of COMSEC systems and their components. Examples are keys, codes, authentication information in physical or electronic form, call signs, frequencies, and supporting documents.
- 1.3.14. COMSEC responsible officer (CRO). Individual appointed by a unit commander to oversee the unit's COMSEC program as outlined in AFI 33-211, *Communications Security (COMSEC) User Requirements*.
- 1.3.15. Computer-based training (CBT). Ground training system that uses computer-generated graphics or text in conjunction with interactive programs as the primary medium of instruction.
- 1.3.16. Continuation training. Ground and flight training events necessary to maintain mission-ready or basic qualification status.
- 1.3.17. Copilot (CP). Pilot qualified to perform duties in the right seat only.
- 1.3.18. Crew resource management (CRM) training. Training to improve the teamwork, dynamics, and effectiveness of aircrews.
- 1.3.19. Critical phases of flight. Take-off, AR, approach to landing, landing, or any flight maneuver stipulated in 11-2XX series instructions specifically requiring direct (access to controls) instructor supervision for qualified or unqualified crewmembers.

1.3.20. Currency event. Flying continuation training events with prescribed maximum interval-between-accomplishment shown in the "CUR" column.

1.3.21. Cycle. 17-month cycle based on inflight evaluation completion date. Instrument refresher course (IRC), open and closed-book testing, and inflight evaluations are required 17 months after previous inflight evaluation. Testing and evaluation will be accomplished during the 6-month period that includes the qualification expiration month and the 5 preceding months. See AFI 11-408, *Aircrew Standardization/Evaluation Program—Organization and Administrations*, and appropriate MAJCOM supplement.

1.3.22. Difference qualification training (DQT). Training necessary to qualify an individual in a different tactic or system within the same aircraft or an aircraft that is a different series other than the one in which currently qualified.

1.3.23. Direct instructor supervision. Instructor of like specialty with immediate access to controls (for pilots, instructor will occupy either aircraft commander or copilot seat).

1.3.24. Event or task. A training event to be accomplished. Several events or tasks constitute a training profile.

1.3.25. Familiarization Item. An item completed by demonstration, observation, briefing, or in-seat experience. Proficiency is not required.

1.3.26. Flight examiner or evaluator. A crewmember designated to administer evaluations.

1.3.27. Flight surgeon (FS). Medical doctor qualified to perform flight surgeon duties and has current aeronautical orders in that AFSC.

1.3.28. Flying Training Level (FTL). A standard assigned to crewmembers, by the squadron commander, directing flying continuation training requirements.

1.3.29. Ground Training Level (GTL). A standard assigned to crewmembers, based upon experience and squadron commander recommendation, directing ground continuation training requirements.

1.3.30. Inflight passenger service specialist. Crewmember qualified in inflight passenger service specialist duties.

1.3.31. Instructor. Crewmember trained, qualified, and certified by the squadron commander as an instructor.

1.3.32. Instructor-candidate. An aircrew member undergoing upgrade training to instructor.

1.3.33. Instructor supervision. A qualified instructor of like specialty supervising a maneuver or training event. For critical phases of flight, the instructor must occupy one of the seats or stations, with immediate access to the controls.

1.3.34. Instrument simulator sortie. Simulator training focusing primarily on instrument procedures.

1.3.35. Mission accomplishment report (MAR). The AMC or MAJCOM-equivalent form for recording continuation training activity.

1.3.36. Mission-oriented simulator training (MOST). Part of a training program (e.g., crew resource management) that includes a practical application, full-mission scenario in the simulator or weapons system trainer.

1.3.37. Mission-ready (MR). Aircrew member who is current, qualified, and certified in the unit's designated missions.

1.3.38. Mission Review Panel (MRP). Locally established panel to review previous day's flight and ground training accomplishment.

1.3.39. Monthly. Training required once every calendar month.

1.3.40. Navigator. Crewmember fully qualified in navigator duties.

1.3.41. Night. Defined as after official sunset until before official sunrise (AFI 11-401, *Flight Management*).

1.3.42. Non-mission ready (NMR). Individual who is non-current or unqualified in the aircraft, incomplete in required continuation training, or not certified to perform the unit missions.

1.3.43. Overseas Sortie (OCONUS Sortie). A sortie that includes a take-off or landing outside the 48 conterminous states of the United States.

1.3.44. Part task trainer (PTT). A device used to practice a specific task such as cargo door operation, cargo loading training, or receiver AR.

1.3.45. Quarterly. 3-month periods defined as 1 October to 31 December (first quarter of the fiscal year), 1 January to 31 March, 1 April to 30 June, and 1 July to 30 September.

1.3.46. Refresher simulator. Simulator training emphasizing aircraft systems, normal and emergency procedures, and mission-specific training requirements. Refresher simulators may be integrated into a block of training termed "phase training" for some weapon systems.

1.3.47. Requalification training. Training required to qualify aircrew members in an aircraft in which they have been previously qualified. See chapter 2 for requalification training requirements.

1.3.48. Semiannual. 6-month training periods from 1 January to 30 June and 1 July to 31 December.

1.3.49. Simulated engine failure take-off continued (EFTOC). Practice procedure simulating engine failure after a take-off or touch and go.

1.3.50. Supervised training status. Crewmember will fly under instructor supervision as designated by the squadron commander or evaluator. This status is a result of loss of currency or qualification, or due to less-than-qualified evaluation.

1.3.51. Tactical visual flight rule (VFR) training (TVT). Weapons system-specific tactical maneuvers. Instruction includes ground training, simulator training, and (if approved by HQ AMC/DO) inflight training. Normal rectangular VFR overheads are not considered TVT maneuvers.

1.3.52. Training devices. All trainers, computer assisted instruction, sound-on-slide programs, videos, and mockups designed to prepare students for flight training or augment prescribed continuation training.

1.3.53. Training level (TL). A standard assigned to crewmembers, by the squadron commander, directing continuation training requirements.

1.3.54. Triennial. Training required once every three calendar years.

1.3.55. Upgrade Training. Training to qualify an aircrew member in a higher crew position.

1.3.56. Weapon system trainer (WST). Device that provides synthetic flight and tactics environment in which aircrews learn, develop, improve, and integrate skills associated with their crew position. Aircrew members may operate individually or as a team.

1.4 Abbreviations:

A	Annual
AC	Aircraft commander
ACDE	Aircrew Chemical Defense Ensemble
ACDT	Aircrew chemical defense training
ACDTQT	Aircrew chemical defense task qualification training
AFFSA	Air Force Flight Standards Agency

AFORMS	Air Force Operations Resource Management System
AFSIR	Air Force Spectrum Interference Resolution (AFI 10-707, AMCI 10-701)
AIFC	Advanced Instrument Flight Center
AMWC	Air Mobility Warfare Center
ANGRC	Air National Guard Readiness Center
APU	Auxiliary Power Unit
AQP	Airport qualification program
AR	Air refueling
ARC	Air Reserve component
ARDA	Airborne radar-directed approach
ARPTT	Air refueling part task trainer
ATD	Aircrew training device
ATMS	Automated Training and Maintenance Subsystem
ATOC	Air terminal operations center
ATS	Aircrew training system
ATSO	Ability To Survive and Operate
BAI	Back-up aircraft inventory
BOPS	Boom Operator Proficiency Sortie
BOPTT	Boom operator part task trainer
C	Cyclical (17-month qualification evaluation cycle)
CBT	Computer-based training
CBWD	Chemical-Biological Warfare Defense
CCP	Command and control procedures
CCRW	Command curriculum review workshop
CCTS	Combat Crew Training School
CFIC	Central Flight Instructor Course
CFT	Cockpit Familiarization Trainer
CLRP	Cargo Loading Review Panel
CLT	Cargo Loading Trainer
COMSEC	Communications security
CONUS	Continental United States
COPAMC	Continuity of Operations, Air Mobility Command
CP	Copilot
CPT	Cockpit procedures trainer
CRAF	Civil Reserve Air Fleet
CRM	Crew resource management
CSD	Course summary document
CSO	Communication systems operator
CST	Combat survival training
CTA	Chemical threat area
CTD	Celestial Training Device
CUR	Currency
DNIA	Duties Not Including Alert
DNIF	Duty not including flying
DOC	Designed operational capability
DOT	Director of Training
DQT	Difference qualification training
EAM	Emergency Action Message
EAR	Event Accomplishment Report
EB	Evaluator boom operator
EMCON	Emission control
EN	Evaluator navigator
EP	Evaluator pilot
ERCC	Engine-Running Crew Change
ERD	Evaluation reference date
ESD	Evaluator standards document
FAIP	First Assignment Instructor Pilot

FB	Basic qualified boom operator
FC	Basic qualified copilot
FE	Flight examiner
FEF	Flight evaluation folder
FLT CC	Flight Commander
FN	Basic qualified navigator
FP	Basic qualified aircraft commander
FTC	Faculty Training Course
FTD	Field Training Detachment
FTL	Flying Training Level
FTO	Formation Takeoff
GT	Ground Training
GTAR	Ground Training Accomplishment Report
GTL	Ground Training Level
HOSM	Host operations systems management
HQ	HAVE QUICK or Headquarters
IB	Instructor boom operator
IBT	Instructor-Based Training
ICAO	International Civil Aviation Organization
IFF SIF	Identification, Friend or Foe, Selected Identification Features
IN	Instructor navigator or intelligence officer or branch
IP	Instructor pilot
IPSS	Inflight passenger service specialist
IQT	Initial qualification training
IR	Infrared
IRC	Instrument Refresher Course
ISD	Instructional systems development
ISOPREP	Isolated personnel report
ISS	Instrument simulator sortie
ITUD	Integral Tanker Unit Deployment
L	Lead
L-BAND	Satellite communications frequency
LA	Low Altitude
LAAR	Low Altitude Air Refueling
LL	Low-level
LSE	Life support equipment
MAR	Mission Accomplishment Report
MB	Mission boom operator
MC	Mission copilot
MDS	Mission-design-series (i.e., KC-135R)
MITO	Minimum interval takeoff
MN	Mission navigator
MOB	Main operating base
MOST	Mission-oriented simulator training
MP	Mission pilot (not applicable for copilots or first pilots)
MQT	Mission qualification training
MR	Mission ready
MRP	Mission Review Panel
MTL	Master task listing
MWS	Major Weapons System
NSO	Navigation Systems Operator
NMR	Non-mission ready
NVG	Night-vision goggles
OCONUS	Outside the 48 conterminous states of the United States
OFT	Operational flight trainer
OG	Operations group

ONP	Overwater Navigation Procedures
OPORD	Operations order
OPR	Office of primary responsibility
OPT	Optional
OSA	Operational Support Airlift
P	Proficient
PAI	Primary aircraft inventory
PDO	Publications distribution office
PFT	Programmed flying training
PPS	Pilot Proficiency Sortie
PTT	Part task trainer
PUP	Pilot upgrade program
RQT	Requalification training
SAAF	Small, austere airfield
SAT	Small Arms Training
SATCOM	Satellite communications
SG	Surgeon general
SIOP	Single-integrated operations plan
SKE	Station-keeping equipment
SOAR	Special Operations Air Refueling
SORTS	Status of Resources and Training System
SS	Single-ship
STAN/EVAL	Standardization and evaluation
TACC	Tanker Airlift Control Center (AMC)
TALCE	Tanker airlift control element
TEQ	Training Effectiveness Questionnaire
TERPS	Terminal instrument procedures
TG	Training guide
TL	Training level
TMO	Tanker Manual Operation
TMS	Training management system
TOSM	Tenant Operations Systems Management
TPS	Tactical proficiency sortie
TRP	Training review panel
TTF	Tanker task force
TTNRT	Table Top Navigation and Rendezvous Trainer
TVT	Tactical visual flight rule (VFR) training
UB	Unqualified boom operator
UC	Unqualified copilot
UE	Unit-equipped
UMD	Unit manning document
UN	Unqualified navigator
UP	Unqualified aircraft commander
USAFSAM	United States Air Force School of Aerospace Medicine
UTA	Unit training assembly
WST	Weapon system trainer or water survival training

1.5. In-Unit Training Time Limitations. Formal entry into an in-unit training program should be accomplished not later than 45 days after the crewmember reports to a new duty station or returns from formal academic training. Failure to complete training within the specified time limit requires approval from the operations group commander and appropriate documentation in the individual's training records (**time limitations not applicable to ANG and AFRC crewmembers**).

Table 1.1. Training Time Limitations.

Training	Time Limit
Initial Qualification (IN-UNIT)	90 days
Difference Qualification	90 days
Requalification (IN-UNIT)	90 days
Mission Qualification	90 days
Instructor Upgrade	60 days

1.6. Waiver Authority:

1.6.1. HQ AMC/DOT manages the KC-135 ATS contract and, therefore, possesses waiver authority for all formal school prerequisites specified in this volume and AFCAT 36-2223 (**EXCEPTION:** Operations group commanders may waive flying-hour requirements). Units should request waivers through their MAJCOM headquarters. (AFRC units process waivers through AFRC NAF to HQ AFRC). Headquarters should submit waivers to HQ AMC/DOT with information copies to 19AF/DOT. Waivers must be submitted and approved prior to crewmembers arriving for formal training. Copies of all waivers should be filed in the trainee's folder and hand-carried to the school.

1.6.2. Formal school operations group commander may waive completion of specific formal school events with concurrence from the gaining unit's operations group commander. If required for squadrons' designated mission, accomplish events waived at formal schools in-unit before assigning MR status.

1.6.3. The operations group commander or ARC-equivalent may waive MAJCOM-directed flying and ground continuation training requirements for individuals assigned to their unit on a case-by case basis. See paragraph 4.9. of this instruction. The OG/CC or ARC-equivalent is not required to send copies of the approved waivers to parent MAJCOM or HQ AMC/DOT.

1.6.4. The operations group commander will submit all other waiver requests through proper MAJCOM channels and send information copies to HQ AMC/DOT. (For USAFE, submit requests through NAF for concurrence, then to USAFE/DOT who will be the approval authority.)

1.6.5. Place copies of MAJCOM approved waiver information in the individual's training folder or FEF. The reporting requirement in this paragraph is exempt from licensing in accordance with paragraph 2.11.12 of AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*.

1.6.6. Aircrew members whose status is "duty not including flying (DNIF)" may log ground training events, including simulator, if the member's physical condition allows it. The flight surgeon who signs the AF Form 1042, **Medical Recommendation for Flying or Special Operational Duty**, placing the crewmember DNIF, should be consulted if the crewmember's ability to complete training is in question.

1.6.7. Aircrew members performing extended alert duty (more than 72 hours) may accomplish any type of ground training, during normal duty hours, that does not degrade required response time or mission accomplishment. (ARC personnel can accomplish while performing any alert duty.)

1.7. Waiver Format. Provide the following information on the referenced individual in a waiver request to the MAJCOM OPR with info copies to HQ AMC/DOT as applicable. Items should be identified as below; those not utilized should be marked "N/A" ("not applicable"). Asterisked (*) items must be provided for all waivers; other items as appropriate.

- *Name, grade, and Social Security number.
- *Flying organization (assigned or attached).
- *Present crew qualification including special qualifications.
- *Total flying time and primary aircraft inventory (PAI) time (include instructor or evaluator time if applicable).
- *Specific nature of waiver.
- *Reason and valid justification for waiver.
- Crew qualification to which person is qualifying or upgrading.
- Previous attendance at any formal instructor course (include course identifier and graduation date).

- Training start date.
- Mandatory upgrade or qualification date.
- Date event last accomplished and normal eligibility period.
- Remarks, to include formal school courseware required.
- *Requesting unit point of contact (include name, rank, telephone number, and functional address symbol).

1.8. Training Folder Management.

1.8.1. Training Folders. A training folder will be initiated for initial qualification, requalification, mission qualification, special qualification, difference, upgrade, and additional training directed by the squadron commander or a flight examiner. The training folder will include training reports (MC Form 44, **Aircrew Training Progress Report**, MC Form 45, **Aircrew Training Accomplishment Report**, and MC Form 46, **Summary/Close-Out Training Accomplishment Report**), training guides, all waivers, and other records as applicable. The training documents will be placed in reverse chronological order with the most recent on top. In addition, the MRP should review the flight training progress report to ensure it was completed properly and accurately. File the form in the individual's training folder after MRP review (*not applicable to CCTS/CFIC*).

1.8.1.1. Formal school records will be sent or hand-carried by the individual to the gaining unit for review and incorporation into the individual's training folder.

1.8.1.2. When a crewmember permanently changes station (PCS) or permanently changes assignment (PCA), training folders will be hand-carried by the individual to the gaining unit. Any incomplete training will be clearly identified on contractor-provided documentation or MC Forms 44 through 46 as appropriate.

1.8.2. Training Folder Review:

1.8.2.1. Operations review. The squadron commander, operations officer, or a designated representative will review active training folders quarterly and prior to a flight evaluation required to complete the training program (**not applicable for formal school training**). Operations review will be a separate entry in the training record and should include comments on the student's progress. Active training folders are folders of crewmembers undergoing initial, mission qualification, requalification, upgrade, special qualification (receiver AR, cell lead, etc.), or commander directed additional training.

1.8.2.2. Monthly review. Flight commanders or their designated representative will review active training folders monthly for continuity and student progression. Document this review and any recommendations in the training folder.

1.8.2.3. Training period review. Instructors will review training folders prior to each training period (flight or simulator) in order to develop a training plan. After each period, instructors will document training in sufficient detail to accurately assess student performance and make recommendations for subsequent training. At the satisfactory completion of all required training, the instructor will make a recommendation for an inflight evaluation. Students will review and initial training records (MC Form 44 or training guide) after each training period.

1.8.3. History of Training:

1.8.3.1. Documentation Procedures. The flight evaluation folder (FEF) maintains basic source documents to provide a current history of each individual's flying qualification in accordance with AFI 11-408 and appropriate MAJCOM Supplement. Under the AF Forms 942, **Record of Evaluation**, in section I of the FEF, include all certifications and special mission qualifications not annotated on AF Forms 8, **Certification of Aircrew Qualification** (i.e. formation lead, SIOP certification, touch-and-go-certification, low-level, low-level AR, etc.). (For USAFE, follow AFI 11-408 supplement guidance. USAFE uses the Letter of Certification (Letter of X's) in lieu of AF Form 1381 for all certifications and special qualifications) Use AF Forms 1381, **USAF Certification of Aircrew Training**. Do not replicate the AF Form 1381 for the purpose of adding a required entry. In addition, every formal training course (including courses taught at Altus) requires an MC Form 46 upon completion of training. (See paragraph 1.8.3.2 for disposition of the MC Form 46.)

1.8.3.2. Place the MC Form 46 (not applicable for additional training) in section I of the FEF under AF Forms 942 and 1381. (For USAFE, follow USAFE/DOV guidance.) Maintain aircrew training folders in assigned squadron for one year following completion of training or on completion of a subsequent upgrade program. For example, a pilot successfully

completes first pilot upgrade, then 6 months later the crewmember successfully completes aircraft commander upgrade. At this time, his or her first pilot training documents may be purged. (See paragraph 1.8.3.3.) (USAFE--after one year, training offices will retain the MC form 46 in the aircrew members training folder (MC Form 21) and all other records may be returned to the individual IAW paragraph 1.8.3.3.)

1.8.3.3. All other records may be returned to the individual. See AFMAN 37-139, table 36-44, rules 6 and 10, for additional information.

1.9. Evaluator and Instructor Usage:

1.9.1. Units are encouraged to use flight evaluators as instructors for qualification and upgrade training programs as required. However, if an evaluator is used as a primary instructor to train an individual during a training program, the same evaluator should not administer the evaluation that completes the training program.

1.9.2. Any trainee in IQT, upgrade, or RQT should be limited to a maximum of three different flight instructors during the course of their training. Squadron commanders, operations officers, flight commanders, training flight instructors, flight superintendents, and chief BOs are not included in the limit.

1.10. Instructor Training and Supervision Requirements:

1.10.1. Instructors will comply with requirements of this instruction. All instructors should be MR (wing-level and below).

1.10.2. The following personnel must be under the supervision of an instructor when performing aircrew duties (unless otherwise exempted in applicable volumes):

- All noncurrent aircrew members.
- All aircrew members in initial, upgrade, or requalification flying training.
- FTL E and senior officers defined in AFI 11-408, *Aircrew Standardization/Evaluation Program—Organization and Administrations*, and paragraph 2.9 of this volume and any other personnel designated by the wing, operations group, or squadron commanders.

1.10.3. For unqualified, noncurrent, and training level E crew pilots, an instructor must be at a set of controls during critical phases of flight.

1.10.4. All instructors and evaluators must be graduates of KC-135 CFIC, or another Major Weapons System (MWS) (non-OSA/non-fighter/non-FAIP) formal aircraft instructor upgrade course, to conduct qualification, requalification, and upgrade flight training and evaluations. Instructors who upgrade in-unit, and who were not previously instructors in another MWS (non-OSA/non-fighter/non-FAIP), may only supervise **qualified** crewmembers who are noncurrent, require corrective training, or require inflight instructor supervision.

1.10.4.1. Only those instructors who have completed the faculty training course (FTC) may conduct initial qualification flight training. Initial qualification training is defined as training to obtain qualification in the individual's primary duty in the aircraft for the first time. This includes any pipeline student or any individual who has not been qualified in the aircraft for over five years. Copilots undergoing Aircraft Commander Upgrade and previous aircraft commanders (ACRQ) of another MWS who were selected through the MAJCOM crossflow process are not considered initial qualification students. (ARC units are exempt from the FTC requirement.)

1.10.4.2. Those maneuvers designated "CCTS only" or "CFIC only" may only be accomplished by instructors currently assigned to the formal school and who have completed FTC.

1.11. Mission-Ready (MR) Crewmember:

For SORTS, operational tasking, and deployments a mission-ready aircrew member is defined as one who is available, qualified, and certified in the squadron's mission (completed mission qualification training for applicable crew position).

1.11.1. In addition, crewmembers must have accomplished and/or maintained the following minimum requirements:

- Annual physical
- Physiological training
- Flight evaluation in the unit's mission
- Flight currency events, except special mission qualifications that do not affect the wartime mission
- All events listed in the applicable ground continuation training tables (see paragraph 4.9.2 for waiver requirements).
- Semiannual flying continuation training requirements (see paragraph 4.9.1 for waiver requirements).

1.12. NMR Crewmember. An individual who is noncurrent or unqualified in the aircraft, incomplete in required continuation training, or not certified to perform the unit mission is a nonmission ready (NMR) crewmember.

1.12.1. If a crewmember is NMR for failure to complete required continuation training, the operations group commander has two options:

- Waive the required training in accordance with paragraph 4.9.2. The individual is then a MR crewmember.
- Place the crewmember in supervised status (individual flies with an instructor of like specialty) until required training is accomplished. The operations group commander may allow individuals to fly unsupervised on CONUS sorties if loss of MR status was for failure to complete ground continuation training. For USAFE and PACAF, individuals may fly local, routine, and noncontingency overseas sorties in their respective AOR.

1.13. Unit Conversion When possible, qualified personnel in other units will provide the initial cadre. In some instances, it will be necessary for units to form an initial cadre of aircrew personnel for whom certain training qualification requirements may be waived. The following conditions will apply to management of initial cadre aircrew qualification:

1.13.1. Form a nucleus of instructor and flight-examiner personnel (initial cadre) to begin aircrew conversion. Conduct qualification of these personnel according to this instruction. Converting units may request initial cadre waiver of PAI time requirement. Send waivers through channels and include the information specified in paragraphs 1.6 and 1.7. Additionally, include the most recent aircraft flown and total time in that aircraft in the remarks section of the waiver.

- Initial cadre will not be designated in a crew position higher than currently held, e.g., C-141 MP to KC-135 EP unless previously qualified in the conversion aircraft.
- After final approval, publish a unit letter to identify initial cadre of instructors and flight examiners by crew qualification.

1.14. Administration of MCI 10-202 , Volume 6. Units will establish requirements for this instruction through MAJCOM publications distribution channels in accordance with AFI 37-161, *Distribution Management*. MAJCOM supplements to this instruction will be distributed within each MAJCOM using requirements from this instruction. Send two copies to HQ AMC/DOT, 402 Scott Drive Unit 3A1, Scott AFB IL 62225-5302.

1.15. Changes. Proposed amendments and recommendations for improvements to this instruction are encouraged. Send to HQ AMC/DOT through command channels on AF Form 847, **Recommendation for Change of Publication (Flight Publications)**.

Chapter 2

QUALIFICATION TRAINING

2.1. Scope. This chapter outlines minimum training requirements for initial qualification, requalification, difference qualification, and senior officer qualification in the KC-135.

2.2. General Requirements. All individuals will normally attend KC-135 CCTS for qualification training courses with the following exceptions:

2.2.1. In-unit difference training when the course is not available at the CCTS.

2.2.2. In-unit Aircraft Commander Upgrade and requalification when slots are not available at CCTS. In-unit requalification flight training is authorized for those individuals who have been unqualified less than 5 years. Formal academics attendance at CCTS is required. Academic courseware may be provided to ARC units on a case-by-case basis. Make waiver requests through appropriate MAJCOM headquarters who will coordinate with HQ AMC/DOT.

2.3. Qualification Training Prerequisites:

2.3.1. In addition to those prerequisites listed with each course in AFCAT 36-2223, the following crew position-specific prerequisites apply:

- AC prerequisites:
 - 1500 hours total flying time, or;
 - 1200 hours total flying time with 300 hours jet time, or;
 - Former or current -135 copilot with 500 hours in -135 aircraft as a mission copilot and 1,000 hours total flying time.

NOTES:

1. Total career flying time logged as a military pilot. Includes "student" and "other" time but does **not** include other crew position time.
2. Operations group commanders may waive flying-hour prerequisites.
3. All C+ (as certified by HQ AMC/DOT) simulator time in weapon system may be included in KC-135 time for upgrade.
4. Navigation Systems Operator (NSO) and Third Pilot (3P) time counts toward AC total flying time prerequisite. Squadron commanders ultimately determine how much NSO or 3P time will count.

2.3.2. All personnel maintaining flying status (AFI 11-401) will meet the following requirements before flying:

- Physiological training (AFI 11-403, *Aerospace Physiological Training Program*)
- Flight physical

2.4. Initial Qualification Training (IQT). IQT requirements for each crew position are listed in the CCTS syllabus. Copies of the CCTS syllabus are available through Det 2, AMCAOS.

2.5. Ground Training Requirements for Aircrew Members. For in-unit qualification training, commanders will obtain and use the currently approved formal school courseware (see paragraph 1.6.1. and AFCAT 36-2223):

- Academic Training—Accomplish all academic training requirements as directed in applicable courseware.
- Written Examinations—Satisfy requirements of AFI 11-408 and MAJCOM guidance.
- Egress and Life Support Training—Must be completed before the first flight. Accomplish initial egress training on an aircraft.

2.5.1. Applicable ground training (i.e., simulators, aircraft systems, etc) accomplished at the formal school establishes due dates for subsequent continuation training. If the date of accomplishment is unknown, use the date on the AF Form 8 generated at the formal school.

2.6. Flying Training Requirements for Aircrew Members. Approved in-unit training must be accomplished according to applicable formal school courseware and the following guidance:

2.6.1. Flying training lessons should be completed in order; however, if mission scheduling or student progress dictates otherwise, the unit commander or designated training supervisor may change the order.

2.6.2. There should be a minimum time lapse between training missions and every effort should be made to complete qualification training requirements within the prescribed time period.

2.6.3. With the operations group commander's approval or ARC-equivalent approval, upgrade and special qualification training requirements may be completed during operational missions under the supervision of an instructor of like specialty. Comply with restrictions in appropriate MCI 11-2XX series instructions, MAJCOM directives, and applicable OPORDs.

2.7. Difference Qualification Training (DQT):

2.7.1. Table 2.1 lists training to qualify a qualified -135 crewmember in another mission and series (M/S) -135 aircraft.

2.7.1.1. The unit training manager or flight commander, after examining the training and evaluation records of the individual, will determine which training events are applicable.

2.7.1.2. Complete all applicable ground and flight instruction involving any equipment, systems or crew procedures which differ from that in the M/S -135 aircraft in which qualified.

2.7.1.3. Training events involving systems and equipment apply only when the applicable aircraft position differs from the one in which qualified.

2.7.2. Complete academic training events essential for flying before starting flight training.

2.7.3. Accomplish Q002, Closed Book Qualification Examination, prior to unsupervised flight when emergency procedures are different.

2.7.4. Q014, Difference Certification, is the squadron commander's certification that all difference training is complete. Unit standardization and evaluation will document difference qualification in the individual's FEF. When individuals receive difference certification at other than home station, where the records are not available, the host unit will document and maintain difference certification in letter form. Document difference training completion in the trainee's training folder with MC Form 46.

Table 2.1. Difference Qualification Training (DQT) Requirements.

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A035	R to E Difference Course	1	1	1	1	
AA01	Qualification Evaluation	A/R	A/R	A/R	A/R	3
G020	Aircraft Ground Egress Training	P	P	P	P	
G025	Aircraft Field Trip	1	1	1	1	
G258	ATD Difference Training Profiles	3	3			2
N010	Tanker Rendezvous			P		
N016	Tanker Rendezvous, Overrun Procedures	P	F	P		
N030	Tanker Point Parallel Rendezvous	P	F	P		
N120	ARDA			P		5
N130	Receiver Rendezvous			P		1
N132	Receiver Point Parallel Rendezvous	P	F	P		1
N136	Receiver Rendezvous Overrun Procedures	P	F	P		1

Table 2.1. Difference Qualification Training (DQT) Requirements. (Continued)

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
P007	Approach to Initial Buffet and Recovery	P	1			2
P018	Copilot Takeoff Climb Duties	P	P			
P020	Takeoff	P	P			
P026	Takeoff and Climb Procedures	P	P			
P035	PMC Off Takeoff	1	F			2
P040	Simulated Engine Failure, Takeoff Continued	P	F			2
P170	Approach and Go-Around, Simulated Engine-Out	P	1			2,6
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	1			6
P180	Approach and Landing, Simulated Engine-Out	P	1			2,6
P190	Landing	P	P			2
P191	Landing, Full Stop, Reverse Thrust	P	1			1
P194	Landing 30-Degree Flaps	P	1			
P200	Touch-and-Go Landing	P				
P240	Landing Gear Alternate Extension	P	P	P	P	
P250	Main Flap Manual Operation	P	P	P	P	
P366	Checklist Procedures and Use	P	P	P	P	
P367	Crew Coordination	P	P	P	P	
Q002	Closed Book Qualification Examination	1	1	1	1	
Q014	Difference Certification	A/R	A/R	A/R	A/R	1
R010	Receiver AR	P	F		A/R	1
R011	Receiver AR, Indoctrination		P	1	1	1
R035	Receiver AR (Heavy Onload)	P	F			1
R020	Receiver AR (Night)	P	F			1
R040	Receiver AR Breakaway and Emergency Separation	P	P	P	A/R	1
R050	Receiver AR, Tanker Autopilot Off	P	F			1
R060	Tanker AR	P	P			
R061	Tanker AR Indoctrination		P			
R070	Tanker Breakaway and Emergency Separation	P	P	P	P	
R080	Tanker AR, Autopilot Off	P	F			
R180	Radio Silent Visual Signals (Receiver Pilots, Tanker Booms)	P	F		P	

NOTES:

1. As applicable.
2. Events accomplished in the OFT/WST only. ARC R model qualified pilots may accomplish in the aircraft; ARC E model qualified pilots can only accomplish in the sim.
3. Pilots completing DQT in -135 aircraft with different power plants (fan versus non-fan) will complete AA01 according to AFI 11-408, *Aircrew Standardization/Evaluation Program—Organization and Administration*, MAJCOM supplement.
4. A/R = as required
5. Required only if or when a difference exists in the aircraft radar (e.g., APN 59 to color weather radar).
6. Familiarization item for ARC copilots.

2.8. Requalification Training (RQT) Limits and Requirements. An aircrew member is unqualified on either loss of currency exceeding 12 months or expiration of his or her qualification evaluation, whichever occurs first. In-unit RQT flying requirements are listed in table 2.2. Formal school RQT requirements are in the CCTS syllabus. Copies of the CCTS syllabus are available through HQ AETC/DOU and the ATS contractor. Requalification requirements are as follows:

- Unqualified up to 2 years: Requires training as directed by the squadron commander and an inflight evaluation.
- Unqualified 2 to 5 years: Complete appropriate AFCAT 36-2223 formal school requalification academic course, in-unit or formal school flying training, and an inflight evaluation.
- Unqualified over 5 years. Complete the appropriate AFCAT 36-2223 formal school initial qualification course.

2.8.1. All RQT academics ("A" events) should be completed before starting flight training.

Table 2.2. In-Unit Requalification Training (RQT) Requirements.

Code	Training Event	Pilot	CP	N	Boom	Notes
A028	Difference Course (KC-135R)	1	1	1	1	
A032	Difference Course (KC-135T)	1	1	1	1	
A034	Requalification Course	1	1	1	1	
A052	Receiver AR Indoctrination	1				
AA01	MAJCOM Qualification Evaluation	P	P	P	P	
G020	Aircraft Ground Egress Training	1	1	1	1	
G025	Aircraft Field Trip	1	1	1	1	
G130	Instrument Refresher Course (IRC)	1	1	1		
G150	BO TERPS				1	
G259	Requalification Simulator	3	3			5
M001	Sortie (Does not include MAJCOM Qualification Evaluation)	5	5	5	5	1
N020	Tanker En Route Rendezvous			P		
N015	Tanker Alternate Rendezvous			P		
N016	Tanker Rendezvous Overrun Procedures	1P		P		
N030	Tanker Point Parallel Rendezvous	1		P		6
N050	Navigation Leg			2P		
N060	Mission Navigation Leg			P		
N090	Control Time and Position Exercise			P		
N100	INS Airborne Alignment			2P		
N120	ARDA			P		
N131	En Route Rendezvous (Receiver)			P		
N132	Point Parallel Rendezvous (Receiver)	P		P		
N150	Celestial Position			2P		
N175	INS/DNS Radar Present Position Update			2P		
P007	Approach to Initial Buffet and Recovery (OFT Only)	1	1			
P011	Takeoff, Night	P	P			
P012	Takeoff, Gyro Mode	P	P			
P015	Instrument Departure	4P	4P			
P018	Copilot Takeoff Duties	P	P			
P026	Takeoff and Climb Procedures	4P	4P			
P030	Max Mode T/O, 30 Flap	P	P			
P040	Simulated Engine Failure, Takeoff Continued	3P	3P			
P071	Holding	P	P			
P072	Penetration (Published)	P	P			
P073	En Route Descent	3P	3P			
P102	ILS (Gyro Mode)	2P	2P			
P103	PAR Approach	2P	2P			2
P110	Non-Precision Approach	6P	6P			
P112	TACAN, VOR or Localizer Approach	6P	6P			
P113	ASR Approach	2P	2P			2
P130	Circling Approach	1	1			
P160	Missed Approach	4P	4P			
P170	Approach and Go-Around, Simulated Engine-Out	3P	3P			

Table 2.2. In-Unit Requalification Training (RQT) Requirements. (Continued)

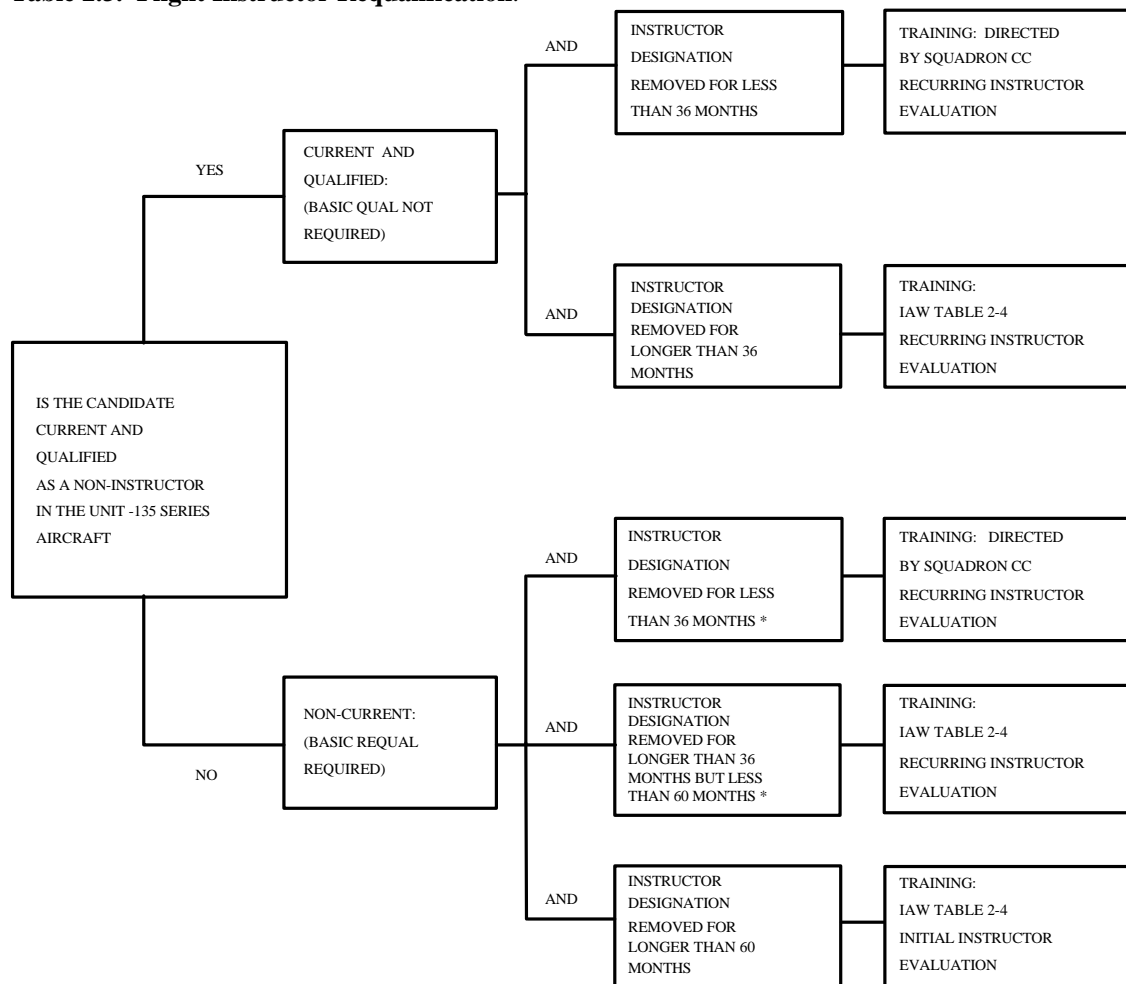
Code	Training Event	Pilot	CP	N	Boom	Notes
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	P	1			
P180	Approach and Landing, Simulated Engine-Out	3P	3P			
P191	Landing, Full Stop, Reverse Thrust (if applicable)	2P	2P			
P192	Night Landing	P	P			
P194	Landing, 30-Degree flaps	3P	3P			
P196	Landing, Full Stop	3P	3P			
P200	Touch-and-Go Landing	5P	5P			
P240	Landing Gear Alternate Extension	1P	1P	3P	3P	
P250	Main Flap Manual Operation	1P	1P	3P	3P	
P260	HAVE QUICK Radio Procedures	2P	2P			
P340	Briefing and Control of Passengers				4P	
P345	Inflight Adjustment and Security of Load				4P	
P360	Mission Planning and Briefing	4P	4P	4P	4P	
P364	Cruise	1				
P366	Checklist Procedures and Use	4P	4P	4P	4P	
P367	Crew Coordination	4P	4P	4P	4P	
P369	Aircraft Equipment Operation	4P	4P	4P	4P	
Q001	Open-Book Qualification Examination	P	P	P	P	
Q002	Closed-Book Qualification Examination	P	P	P	P	
Q012	Supervision of Copilot Takeoffs, Landings and Receiver AR	2P				
R010	Receiver AR	2P				4
R020	Receiver AR (Night)	2P				4
R050	Receiver AR, Tanker Autopilot Off	2P				4
R060	Tanker AR	3P	3P	3P	3P	
R070	Tanker AR Breakaway and Emergency Separation	2P	2P	2P	3P	
R080	Tanker AR Autopilot Off	2P	2P		1F	
R120	Contacts				15P	
R125	Day Contacts				10P	
R130	Night Contacts				5P	
R135	Preparation for Contact Procedures				4P	
R140	Tanker Manual Contact				6P	
R180	Radio Silent Visual Signals				2P	
R230	Emergency Boom Hoist				1F	

NOTES:

1. A minimum of five sorties must be planned prior to MAJCOM qualification evaluation. The flight commander may waive fifth sortie based on proficiency attained in all required training events.
2. If ASR or PAR approaches are not readily available, as determined by the operations officer, then P103 and P113 may be accomplished in the OFT. The method of accomplishment will be annotated on the training report in the individual's training folder.
3. Copilot requalification training requirements will be determined by the operations officer.
4. Required for receiver pilots only.
5. N/A ARC.
6. For ARC pilots, proficiency is required.

2.8.2. Table 2.3 lists required training and type of evaluation for requalifying as an instructor.

2.8.3. Table 2.4 lists ground and flight training events required for instructor requalification. Individuals who have completed KC-135 CFIC are not required to reaccomplish A010, Instructor Academic Training. Instructor requalification events may be accomplished concurrently with basic requalification events.

Table 2.3. Flight Instructor Requalification.**NOTES:**

1. Category is established at the start of requalification and does not change until instructor requalification is complete.
2. Those individuals requiring basic requalification will complete the requirements of requalification tables.
3. Basic and instructor requalification may be conducted simultaneously. Consult MAJCOM supplement to AFI 11-408 for guidance on simultaneous instructor requalification and basic requalification evaluations.

Table 2.4. Instructor Requalification Training Requirements.

Code	Training Event	Pilot	Nav	Boom	Notes
A044	Instructor Pre-Attendance Workbook	1	1	1	1
AA01	Instructor Flight Evaluation	1	1	1	
M001	Sortie (Includes MAJCOM Qualification)	3	3	3	
N010	Tanker Rendezvous		P		
N060	Mission Navigation Leg		P		
N140	Celestial Observation			P	
P007	Approach to Initial Buffet and Recovery	P	F	F	2
P012	Takeoff-Gyro Mode	P			
P015	Instrument Departure	P			
P020	Takeoff	P			
P040	Simulated Engine Failure, Takeoff Continued	P			
P071	Holding	P			
P072	Penetration (Published)	P			

Table 2.4. Instructor Requalification Training Requirements. (Continued)

Code	Training Event	Pilot	Nav	Boom	Notes
P073	En Route Descent	P			
P101	ILS Approach	P			
P102	ILS (Gyro Mode)	P			
P103	PAR Approach	P			3
P110	Non-Precision Approach	P			
P111	VOR/TACAN Procedures	P			
P130	Circling	P			
P140	Visual Traffic Pattern	P			
P160	Missed Approach	P			
P170	Approach and Go-Around, Simulated Engine Out	P			
P171	Approach and Go-Around, Simulated Engine Out, Rudder Power Off	P			
P180	Approach and Landing, Simulated Engine Out	P			
P190	Landing	P			
P194	Landing, 30-Degree Flaps	P			
P195	Landing, Simulated Engine Out, 4-Engine Takeoff	P			
P200	Touch-and-Go Landing	P			
P215	Landing Attitude Demonstration	P			
P240	Landing Gear Alternate Extension		P	P	
P250	Main Flap Manual Operation		P	P	
P340	Briefing and Control of Passengers			P	
P345	Troubleshooting AR Equipment Malfunctions			P	
P355	Inflight Adjustment and Security of Load			F	
P360	Mission Planning and Briefing	P	P	P	
P366	Checklist Procedures and Use	P	P	P	
P369	Aircraft Equipment Operation	P	P	P	
P380	Spoiler and Lateral Control Demonstration	P			
P382	Trim Demonstration	P			
P383	Simulated Jammed Stabilizer Demonstration	P			
Q001	Open-Book Qualification Examination	1	1	1	
Q002	Closed-Book Qualification Examination	1	1	1	
R050	Receiver AR, Tanker Autopilot Off	P			
R060	Tanker AR	P		P	
R070	Tanker AR Breakaway and Emergency Separation	P		P	
R080	Tanker AR Autopilot OFF	P			
R120	Contacts			P	
R135	Preparation for Contact Procedures			P	
R140	Tanker Manual Contact			P	
R180	Radio Silent Visual Signals			P	

NOTES:

1. A044, CFIC Preattendance Workbook, is required if individual has been unqualified or removed from instructor status over 36 months. The squadron should request an instructor workbook from the ATS contractor if requalification is done in-unit. The workbook must be completed prior to the flight evaluation and returned to the contractor for grading.
2. OFT/WST only.
3. For ARC, may be accomplished in sim.

2.9. Senior Officer Qualification. Reserved for senior officer (0-6 and above) positions requiring operational flying. Senior officers will complete the appropriate senior officer course (unless already qualified), must fly with an instructor and

will maintain training level E continuation training requirements. **EXCEPTION:** General officers in commander billets, NAF commanders, wing commanders and operations group commanders are eligible to fly without an instructor only in their primary assigned aircraft. These personnel must complete or have completed initial qualification in their primary assigned aircraft. Those senior officers who were previously qualified in their primary assigned aircraft via an initial qualification course may complete requalification training, in accordance with paragraph 2.8. Senior officers flying unsupervised must meet the above requirements, be current and qualified in the weapons system and maintain training level A continuation training requirements, including simulator requirements. Senior officer courses do not lead to unsupervised qualification in any weapon system.

2.9.1. Flying NAF/CCs and OG/CCs must be fully qualified flight examiners in their primary assigned aircraft. These individuals do not require nor do they have to maintain instructor certification or mission ready status. To become an FE, NAF/CCs and OG/CCs must maintain a minimum of TL E requirements and be FE qualified IAW AFI 11-408 (i.e., requires documentation on AF Form 1381) (USAFE uses the Letter of Certification (Letter of X's) in lieu of AF Form 1381 for all certifications and special qualifications). This policy is based on the premise that these individuals already possess a strong history of experience, judgment, and superior airmanship to evaluate high standards of performance in the air. As a result, additional currency/proficiency requirements to maintain FE status are not required. Also, FE status for additional aircraft assigned to the unit is not required. NAF/CCs and OG/CCs maintaining TL E require instructor supervision when at the controls of an aircraft. Table 2.5 contains senior officer qualification and requalification requirements.

Table 2.5. Senior Officer Qualification and Requalification Requirements.

Code	Training Event	Pilot	Nav	Notes
A004	Senior Staff Qualification Course	1	1	
AA01	Qualification Evaluation	P	P	
M001	Sortie (Includes MAJCOM Qualification)	3	3	2
N016	Tanker Rendezvous Overrun Procedures	F	1	
N020	Tanker En Route Rendezvous	F	1P	
N030	Tanker Point Parallel Rendezvous	F	1P	
P012	Takeoff-Gyro Mode	1		
P015	Instrument Departure	2P		
P020	Takeoff	2P		
P026	Takeoff and Climb Procedures	2P		
P040	Simulated Engine Failure, Takeoff Continued	2P		
P071	Holding	1		
P072	Penetration (Published)	1		
P073	En Route Descent	2P		
P100	Precision Approach	3P		
P102	ILS (Gyro Mode)	1P		
P110	Non-Precision Approach	3P		
P112	TACAN, VOR, and Localizer Approach	3P		
P160	Missed Approach (Manual)	3P		
P170	Approach-and-Go, Simulated Engine-Out	2P		
P171	Approach and Go, Simulated Engine-Out, Rudder Power Off	1		
P180	Approach-and-Land, Simulated Engine-Out	2P		
P190	Landing	2P		
P194	Landing, 30-Degree Flaps	1		
P200	Touch-and-Go Landing	3P		
P360	Mission Planning and Briefing	1P	2P	
P365	Autopilot Off Cruise	1		
P366	Checklist Procedures and Use	2P	2P	
P367	Crew Coordination	2P	2P	
P369	Aircraft Equipment Operation	2P	2P	
Q001	Open-Book Qualification Examination	1	1	

Table 2.5. Senior Officer Qualification and Requalification Requirements. (Continued)

Q002	Closed-Book Qualification Examination	1	1	
R060	Tanker AR	P	2P	1
R070	Tanker AR Breakaway and Emergency Separation	P	1P	1

NOTES:

1. Required when qualification includes tanker AR.
2. Includes MAJCOM Qualification Evaluation.

2.10. Flight Surgeons. Will complete written qualification examination pertaining to their primary assigned aircraft administered by standardization-evaluation (stan/eval) and accomplish aircraft ground egress training (G020). They must also be thoroughly briefed on emergency exits and egress procedures prior to flying on any aircraft.

2.11. Reports:

2.11.1. The ATS contractor will distribute CCTS post-graduate training critiques to each student's unit approximately 60 days after the student's graduation date. The student will complete one critique, with the student's commander or supervisor completing the other. The unit will return both critiques to: Det 2 AMCAOS; 510 North 6th Street, Suite 3; Altus AFB OK 73523-5089. CCTS will maintain critique findings and actions taken for 24 months.

2.11.2. 97 OSS/DOT will submit an CCTS graduate summary report (RCS: AMC/DOT (AR)9526) to HQ AETC/ XOTA and HQ AMC/DOTK not later than 30 working days after each class completion. Send copies to 19 AF/DOT, 15 AF/DOVT, and 21 AF/DOVT. Include the following in the report:

- Class number, crew numbers, and previous aircraft flown, if different
- Total number of WST/OFT missions, aircraft sorties, and flight time scheduled and flown in CCTS
- Analysis by crew position of inflight evaluation results including substandard activity or unqualified areas
- Training items waived and reason for waiver

NOTE: This report is designated emergency status code C3. Continue reporting during emergency conditions, delayed precedence. Submit data requirements as prescribed, but they may be delayed to allow submission of higher precedence reports. Submit by nonelectric means if possible. Discontinue electronic reporting during MINIMIZE.

2.12. Failure To Complete Formal Training. If any crewmember fails to complete a formal course, the formal school will send a recommendation to the individual's unit on whether he or she should complete training in-unit (which requires a waiver), be eliminated, or return to the formal school for training. In addition, requests to recall a student from a formal school course must be sent from the student's MAJCOM to 19 AF/DOT.

19 AF/DOT will accomplish all necessary coordination with 97 AMW agencies. Emergency recall during non-duty hours may be coordinated directly with the 97 OSS with notification to 19 AF on the next duty day.

Chapter 3

MISSION QUALIFICATION TRAINING (MQT)

3.1. Scope. This chapter lists KC-135 specific training requirements to qualify aircrews in their unit missions and achieve MR status.

3.2. Mission Qualification Training. Tables 3.1 and 3.2 list minimum training an individual must complete to become MR. Training may be accomplished concurrently with other training. Each unit should conduct a training program designed to mission qualify crewmembers while preventing regression of flying skills gained at CCTS. Complete CCTS waived proficiency (P) events before declaring the individual MR.

3.3. Time Period for Mission Qualification. Crewmembers will complete mission qualification training within 90 days (180 days for ARC) of entering MQT.

3.3.1. Crossflow program selectees will be entered into AC mission qualification training upon arrival at the unit. Delays to mission AC upgrade are contrary to the intention of the crossflow program and will be avoided.

3.4. Ground Training Requirements: All academic ground training required for mission qualification will be completed prior to certification or qualification in the unit operational mission.

Table 3.1. Mission Qualification Ground Training Requirements. *If conventional taskings prevent completion of mission qualification training prior to deployment, contact parent MAJCOM for waiver approval. Waivers will be approved on a case-by-case basis.*

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
A037	SIOP Performance Training	P	P			1, 2
<u>G002</u>	Aircraft Marshaling Training and Examination	1	1	1	1	1,5
<u>G003</u>	Flightline Drivers Training and Examination	1	1	1	1	1,5,7
<u>G010</u>	Chemical Biological Warfare Training	1	1	1	1	1
<u>G020</u>	Aircraft Ground Egress Training	1	1	1	1	
G031	Initial Command and Control Procedures	P	P	P	P	1, 2
G033	Unit Alert Procedures	P	P	P	P	1, 2, 5
G034	MITO Training	P	P	P	1	2
G035	PLZT Goggle Training	1	1	1	1	1, 2, 4
G036	Flash Blindness and Thermal Protection	P	P	P	P	1, 2
G040	SIOP Study	P	P	P	P	2
G041	Unit Mission Briefing	1	1	1	1	5
<u>G060</u>	Tactics	1	1	1	1	1, 5
<u>G070</u>	Aircrew Intelligence Training	1	1	1	1	
<u>G080</u>	Communications Procedures	1	1	1	1	1
<u>G090</u>	Antihijacking	1	1	1	1	1
<u>G100</u>	Laws of Armed Conflict	1	1	1	1	1
<u>G110</u>	Protection From Terrorism	1	1	1	1	1
<u>G120</u>	ISOPREP Review	1	1	1	1	5
<u>G182</u>	Hazardous Cargo Training	1	1		P	3
G183	Floor Loading				P	3
G184	Palletized Cargo Loading				P	3
G190	Aircraft Servicing	1	1	1	1	1
G210	Alert Start Procedures	P	P	F	F	2
<u>G230</u>	CRM	1	1	1	1	
G242	CRM Simulator 1	1	1	1	1	8,10
G243	CRM Simulator 2	1	1	1	1	8,10

Table 3.1. Mission Qualification Ground Training Requirements (Continued)

Code	Training Event	Pilot	Copilot	Nav	Boom	Note
G257	American Airlines Simulator	1	1			9
<u>G280</u>	Small Arms Training	P	P	P	P	1, 3
<u>LS02</u>	ACDT	1	1	1	1	1
<u>PP01</u>	Flight Physical	1	1	1	1	
<u>PP11</u>	Physiological Training	1	1	1	1	
<u>P280</u>	ACDTQT	1	1	1	1	
Q010	SIOP Certification	1	1	1	1	2, 5,6
Q016	Conventional Certification	1	1	1	1	5,6
<u>S-V80-A</u>	Initial Combat Survival Training	1	1	1	1	
<u>S-V90-A</u>	Initial Water Survival Training	1	1	1	1	

NOTES:

1. AC Upgrades are not required to accomplish if previously accomplished as a copilot.
2. Required for units with SIOP DOCs. Units with a primary or secondary SIOP DOC must have 100 percent of their line crews SIOP certified. With the exception of G035, all items must be completed prior to Q010, SIOP Certification.
3. Individuals may be declared MR without completing events G182, G184, and G280; however, these events must be completed not later than 180 days following certification or prior to cargo or passenger mission, whichever comes first.
4. G035 must be completed within 60 days of helmet modification; crewmember may be declared MR prior to completing G035.
5. Previously certified and qualified mission-ready crewmembers transferring between units or in a cross-flow program (between flying units) only need any unit specific training in these events, and any applicable events in which they have lost currency.
6. Q010 and Q016 may be accomplished prior to aircraft qualification/requalification, however, an individual cannot be signed off as certified or mission ready until all training is complete.
7. Required only for those crewmembers who need to drive on the flightline as determined by the squadron commander.
8. N/A ARC.
9. ARC only.
10. Events may be accomplished at formal school or in-unit.

3.4.1. Ground training accomplished during mission qualification establishes due dates for subsequent continuation training. Completion of S-V80-A, S-V90-A, and initial life support equipment training during formal school establishes the due date (based on date of first completed course) for recurring Combat Survival (LS03) and Water Survival (LS04) training. Completion of S-V80-A establishes the due date for recurring Law of Armed Conflict (G100), and Protection from Terrorism (G110) training.

3.5. Flying Training Requirements:

3.5.1. Basic qualified aircrew members pursuing MR status will accomplish Training Level "D" continuation training requirements.

3.5.2. After arrival at duty station, crewmembers must receive a supervised duty familiarization or orientation flight and local flying area or associated hazards brief (**not applicable for in-unit initial, requal, or upgrade training**).

Table 3.2. Mission Qualification Flight Training Requirements.

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
P260	HAVE QUICK Radio Procedures	P	P			4
P270	SECURE RADIO Operation	P	P	P		4
P280	ACDTQT	1	1	1	1	4
P290	Alert Start	P	P			9
Q021	BRAVO Qualification				P	2,7
Q022	CHARLIE (Day) Qualification				P	2,7
Q023	CHARLIE (Night) Qualification				P	2,7
Q026	FOXTROT Qualification				P	3,7

Table 3.2. Mission Qualification Flight Training Requirements. (Continued)

Code	Training Event	Pilot	Copilot	Nav	Boom	Notes
Q028	GOLF Qualification	P				1,3
Q030	INDIA (Night) Qualification				P	5,7
Q031	JULIET Qualification				P	6,7
Q032	KILO Qualification				P	7
R160	Radio Silent Breakaway				P	
R165	Radio Silent AR				P	

NOTES:

1. Pilots may be declared mission-ready when qualified in category receivers required by unit mission.
2. When day and night AR qualification is required, day qualification must be accomplished prior to commencing night training and qualification.
3. All receiver category qualification will be conducted under direct supervision of a like-specialty instructor.
4. AC upgrades are not required to accomplish if current.
5. Must be qualified in Q023 prior to Q030 training.
6. If initial B-2 contact is at night it must be supervised by a Q031 qualified instructor.
7. With program manager recommendation and squadron commander approval, individuals may be declared qualified in a specific air refueling category.
8. Boom Operators may be declared mission-ready and can deploy forward when qualified in category receivers required by unit SIOP mission or when items Q22, Q23, and Q26 have been accomplished. Completion of the remaining events may be accomplished in theater with an instructor. Unit SIOP mission required events will be accomplished within 60 days of return to home station; all other events will be accomplished at the earliest opportunity.
9. Required for units with SIOP DOCs.

Chapter 4

CONTINUATION TRAINING

4.1. Scope. This chapter describes the KC-135 continuation training program required to maintain proficiency in the unit missions.

4.2. Responsibilities:

4.2.1. MAJCOMs and NAFs will determine unit of attachment for their staff personnel in flying positions.

4.2.2. Squadron commanders. The squadron commander or designated representative will ensure individuals receive training to successfully complete unit missions and maintain individual proficiency. The squadron commander will also determine the training level of each assigned crewmember. The squadron commander will also determine the following:

- Which pilots will be formation-lead certified (Q011)
- Which aircraft commanders will be certified to accomplish their own touch and go landings (Q050)
- Which aircraft commanders will be certified to supervise unit copilot takeoffs, touch and go landings, and receiver air refueling (P320)
- Which crewmembers are EMCON 3 or 4 certified (Q060/Q070)

4.2.3. Flight commanders will check quality of training accomplished, identify deficiencies, and advise squadron staff of additional training needs.

4.2.4. Unit schedulers will tailor training sorties to increase training and use flying time effectively.

4.3. Training Levels (TL). Before each semiannual period, the squadron commander will assign each crewmember a TL. TL assignment is based on experience and aircraft proficiency. Crewmembers may be assigned ground training levels that are more restrictive, but never less restrictive than the requirements in paragraph 4.3.2. Use the date of the initial qualification inflight evaluation for determining an individual's time in the weapon system. TL definitions follow:

4.3.1. Flying Training Levels (FTL):

4.3.1.1. FTL "A"—highly experienced crewmembers. This may include MR or NMR MAJCOM headquarters and TACC personnel; AETC instructors; NAF personnel; AMWC instructors; wing, operations group, and squadron commanders; operations officers, personnel assigned to OG evaluation positions, and any instructors assigned primarily to staff duties. Squadron commanders have the discretion to assign highly experienced MR line crewmembers to this level.

4.3.1.2. FTL "B"—experienced, mission ready crewmembers.

4.3.1.3. FTL "C"—MR crewmembers. Copilots should be assigned to FTL "C." If desired, squadron commanders may assign highly proficient copilots or first pilots to FTLs "A" or "B."

4.3.1.4. FTL "D"—basic qualified crewmembers. Designated primarily for basic qualified crewmembers who are pursuing MR status.

4.3.1.5. FTL "E"—basic qualified, noninstructor staff (may include senior officers, MAJCOM, NAF, and TACC individuals who are not maintaining MR or instructor status). FTL E requirements are insufficient for MR status. Crewmembers assigned to FTL E will fly with an instructor of like specialty at all times.

4.3.2. Ground Training Levels (GTL):

4.3.2.1. GTL "1"—highly experienced crewmembers with greater than 10 years in their rated specialty and a minimum of 3 continuous years in the weapon system.

4.3.2.2. GTL "2"—experienced crewmembers with greater than 5 but less than 10 years in their rated specialty and a minimum of 3 continuous years in the weapon system.

4.3.2.3. GTL "3"—inexperienced crewmembers with less than 5 years in their rated specialty or less than 3 continuous years in the weapon system.

4.3.2.4. GTL "4"—Assigned to FTL E and senior officers. For GTL 4, use Table 4.3.

4.3.3. Change of FTL or GTL. Once the semiannual period begins, personnel should not be moved to a level requiring fewer events. **EXCEPTION:** Basic qualified crewmembers may be placed in a different FTL any time after attaining MR status.

4.4. Crediting Event Accomplishment:

4.4.1. In addition to events accomplished on training and operational missions, those flight events accomplished on a satisfactory qualification, mission qualification, specialized mission qualification, or requalification evaluation may be credited towards the individual's currency requirements and establishes a subsequent due date.

4.4.2. Aircrew members who are unqualified in the aircraft due to an unsatisfactory flight evaluation will not log continuation training requirements for those events graded Q-3 until requalified.

4.4.3. All AC Upgrade and CFIC training may be credited for continuation training. This includes category I AC Upgrade training done in the left seat and pre- or post-CFIC pilot training done in the right seat. See table 4.2 (notes 9 and 10 for pilots and note 9 for boom operators) for specific creditable events.

4.5. Proration of Training. When determining the training requirements, prorate an individual on nonflying temporary duty (TDY), DNIF, civilian jobs (**not applicable for active duty**) or emergency leave. Prorate requirements for individuals changing training levels. Use the following formula to determine training requirements: number of months available times the event volume divided by the number of months in the training period. Round down to the nearest whole number but not less than 1 (e.g. 5.6 rounds to 5). Use table 4.1 to determine the number of months available. **EXCEPTION:** When an individual permanently changes station to a unit flying the same model aircraft and enters the same training level or lower, credit may be taken for training accomplished at the previous base. Prorate training requirements based on the time available (time at former base, plus time at new base, minus number of days not available) during the training period. Time available starts 7 days after sign-in for CONUS and 14 days after sign-in for OCONUS. Subtract previous accomplishments from the prorated total to determine remaining requirements.

Table 4.1. Individual Availability.

Days Available	Months Available
0-15	0
16-45	1
46-75	2
76-105	3
106-135	4
136-165	5
>166	6

4.6. Dual-Seat Qualification:

4.6.1. IPs may fly in either seat. Additionally, non-IPs (aircraft commanders and first pilots) will be dual-seat qualified. These dual-seat qualified individuals must accomplish recurring qualification checks according to AFI 11-408 or MAJCOM publications. Copilots may not fly in the left seat unless under direct IP supervision.

4.6.2. Dual-seat aircraft commanders may accomplish training events in either seat. Accomplishing a currency event in either seat is sufficient to maintain currency for that event in both seats.

4.7. Dual-Aircraft Qualification. Crewmembers maintaining dual qualification in different model aircraft will, as a minimum, maintain FTL "A" currency requirements in each aircraft (**not applicable for senior officers**). NAF DOV and AMWC pilots will also maintain a 90-day currency between like model aircraft in the above events. NAF DOV is not required to maintain reverse thrust landing currency, but will demonstrate reverse thrust proficiency when required.

4.8. Training Period. Continuation training program is based on static 6-month periods (1 January - 30 June and 1 July - 31 December).

4.9. Failure to Complete Training Requirements. Declare individuals NMR if they fail to complete ground or semiannual flying continuation training requirements. The following guidance applies:

4.9.1. Flight Training. At the end of the semiannual training period, the squadron commander will review AFORMS products for those crewmembers who failed to accomplish all required semiannual flying training events (includes all events listed in the flying continuation training tables). The squadron commander will either direct training necessary for the individual to regain MR status or request an operations group commander waiver. If the AFORMS review shows enough flying events were recently accomplished to ensure MR proficiency, the operations group commander or equivalent may waive the requirements. The same flying training events will not be waived for two consecutive training periods. This waiver authority must be used judiciously. The intent is to ensure crewmembers receive the proper quantity of flying events to remain proficient and allow the operations group commander to determine MR status and additional training requirements when those training quotas are not met. **EXCEPTION:** Flight currency will only be waived under extreme circumstances and only at the MAJCOM level. Flight currency is associated with those events denoted in the flying continuation training tables by a specific period of time (monthly, quarterly, semiannual, or annual) within which an event must be accomplished (listed in the "CUR" column).

4.9.2. Ground Training. The OG/CC or equivalent may waive ground continuation training. This waiver authority must be used judiciously. The decision to grant a waiver will be based on the individual crewmember's experience and proficiency level (i.e., waivers will not be based on a crewmember's availability). The operations group commander will determine the allowable time period of the waiver (the training should be completed at the earliest opportunity). This waiver is allowed for unforeseen circumstances and only for events that will not degrade mission accomplishment.

4.9.3. Refer to AFI 11-401 for individuals transferring between aircraft or leaving active flying status. The provisions of AFI 11-401 also apply to all simulator training.

4.9.4. Failure to accomplish recurring ground egress training (G020), flight physical (PP01), or physiological training (PP11) results in immediate grounding until the training is accomplished.

4.9.5. Make-up training (ground or flying) is creditable towards the new training period.

4.9.6. See paragraph 1.12.1 for NMR crewmember flying policy.

4.10. Loss of Currency. Place individuals delinquent in one or more currency events in supervised training status for that event and declare them NMR in those unit missions requiring that event. *Crewmembers non-current for less than 2 months will maintain their current training level and a training folder need not be accomplished.* Crewmembers are non-current the day after event currency expires; (i.e., a crewmember who accomplished an event with monthly currency on 1 September becomes non-current on 1 November).. Regain currency based on the time elapsed since becoming non-current as follows:

- Less than 2 months. Flight with an instructor of like specialty to regain currency. *Instructors will annotate event for which currency was regained on the back of the AF Form 781 for the flight.*
- 2 through 6 months. Squadron commander determines training and evaluation requirements. If the squadron commander determines an evaluation is required, conduct a spot evaluation in the affected area.
- Over 6 months but less than 1 year. Squadron commander determines training. Accomplish an evaluation (check-ride events) or re-certification (certification events), as applicable, in those non-current items.
- More than 1 year. The individual is unqualified in the aircraft and must complete aircraft requalification. (See paragraph 2.8 for requalification training requirements.)

4.11. Ground Continuation Training Events. KC-135 Ground Continuation Training Events are in table 4.2. All items are MR events except flight records review.

4.11.1. Crewmembers attached to units (i.e., NAF, MAJCOM, AMWC, etc.) may accomplish ground training events at locations other than their units of attachment. Individuals are responsible for reporting accomplished training to their unit of attachment AFORMS office.

4.11.2. Flight Surgeons comply with requirements of table 4.4.

Table 4.2. Ground Continuation Training Requirements.

1. Course descriptions can be found in attachment 1.
2. Use the following definitions for the regular frequency of ground training:
2.1. B—Biennial. Accomplished every 2 calendar years. Initial accomplishment establishes a currency reference year.
2.2. A—Annual. Accomplished once each calendar year. Initial accomplishment establishes a currency reference year.
2.3. SA—Semiannual. Accomplished each training period, not later than the end of the 6th month from the month last accomplished.
2.4. T—Triennial. Accomplished every 3 calendar years. Initial accomplishment establishes a currency reference year.
2.5. Q—Quarterly. Accomplished twice each training period, once in the first 3 months and once in the second 3 months.
2.6. M—Monthly. Accomplished each calendar month.
2.7. A/R—As Required.
2.8. C—Cycle. In conjunction with qualification evaluation (i.e., every 17 months).

Table 4.2. Ground Continuation Training Requirements.

Pilot/Copilot		Pilot Training Level			Copilot Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
G010	Chem -Biological Warfare Defense Training	B	B	B	B	B	B	15
G020	Aircraft Ground Egress Training	T	T	B	T	T	B	14
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,10,15
G034	MITO Procedures	A	A	A	A	A	A	1,15
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,10,15
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
G060	Tactics	A	A	A	A	A	A	
G070	Aircrew Intelligence Training	A	A	A	A	A	A	15
G080	Communications Procedures	A	A	A	A	A	A	
G090	Anti-hijack	B	B	B	B	B	B	
G100	Laws of Armed Conflict	A	A	A	A	A	A	
G110	Protection From Terrorism	T	B	A	T	B	A	15
G120	ISOPREP Review	180	180	180	180	180	180	3,15
G130	Instrument Refresher Course	C	C	C	C	C	C	
G182	Hazardous Cargo Training	A	A	A				15
G190	Aircraft Servicing	T	B	A	T	B	A	
G210	Alert Start Procedures	A	A	A	A	A	A	1,15
G222	Hydraulics	A	A	A	A	A	A	
G223	Flight Controls	A	A	A	A	A	A	
G224	Fuel Systems	A	A	A	A	A	A	
G225	Electric Systems	A	A	A	A	A	A	
G226	Environmental Systems	A	A	A	A	A	A	
G227	Engines, Propulsion, APU	A	A	A	A	A	A	9
G230	CRM Refresher	A	A	A	A	A	A	6,9
G242	CRM Simulator 1	A	A	A	A	A	A	7,8
G243	CRM Simulator 2	A	A	A	A	A	A	7
G252	Electrics & Fuels Simulator	A	A	A	A	A	A	5,8
G253	Engines & Pneumatics Simulators	A	A	A	A	A	A	5,8

Table 4.2. Ground Continuation Training Requirements (Continued)

Pilot/Copilot		Pilot Training Level			Copilot Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
G254	Flight Controls & Instrument Simulator	A	A	A	A	A	A	5,8
G260	Instrument Simulator Sortie	A	A	A	A	A	A	11
G270	Tactics Simulator	A	A	A	A	A	A	7,11,12,15
<u>G280</u>	Small Arms Training (SAT)	B	B	B	B	B	B	15
G802	SOAR Ground Training	A	A	A	A	A	A	4
<u>LS02</u>	Aircrew Chemical Defense Training	B	B	B	B	B	B	
<u>LS03</u>	Combat Survival Training	T	T	T	T	T	T	14
<u>LS04</u>	Water Survival Training	T	T	T	T	T	T	14
<u>PP01</u>	Flight Physical	A	A	A	A	A	A	3
<u>PP11</u>	Physiological Training	T	T	T	T	T	T	3,13
Q010	SIOP Certification	A	A	A	A	A	A	1,2
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	
<u>RR01</u>	Flight Records Review	A	A	A	A	A	A	3

NOTES: (Underlined code indicates standardized across weapons systems.)

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Included as ground training for documentation or AFORMS tracking only. Physical expires on last day of birth month.
4. Required for SOAR certified aircrews only.
5. ARC pilots and copilots are required two of the three refresher simulators per year. Log G990/991.
6. Credit G230 for completing CRM simulator pre-brief.
7. Not applicable for ARC units, NAF, MAJCOM, and Det 2 AMCAOS.
8. Credit during initial, upgrade, and requalification training to establish reference dates.
9. Creditable during CFIC training
10. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
11. Not applicable for AETC instructors.
12. Simulator training not required for USAFE. Local ground training course will be substituted to cover applicable material.
13. Must be completed before three year expiration date versus calendar year. USAFE personnel are required to accomplish every 4 years (If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS).
14. For USAFE, G020, LS03, and LS04 are biennial events. See USAFE 11-301 for requirements.
15. Not required for NMR AETC crewmembers.

Table 4.2. Ground Continuation Training Requirements

Navigator/Boom Operator		Nav Training Level			Boom Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
<u>G010</u>	Chem -Biological Warfare Defense Training	B	B	B	B	B	B	15
<u>G020</u>	Aircraft Ground Egress Training	T	T	B	T	T	B	14
G030	SIOP Command & Control Procedures	Q	Q	Q	Q	Q	Q	1,10,15
G034	MITO Procedures	A	A	A				1,15
G040	SIOP Study	Q	Q	Q	Q	Q	Q	1,10,15
G041	Unit Mission Briefing	AR	AR	AR	AR	AR	AR	
<u>G060</u>	Tactics	A	A	A	A	A	A	15
<u>G070</u>	Aircrew Intelligence Training	A	A	A	A	A	A	15
G080	Communications Procedures	A	A	A	A	A	A	
<u>G090</u>	Anti-hijack	B	B	B	B	B	B	
<u>G100</u>	Laws of Armed Conflict	A	A	A	A	A	A	
<u>G110</u>	Protection From Terrorism	T	B	A	T	B	A	15
<u>G120</u>	ISOPREP Review	180	180	180	180	180	180	5,15
<u>G130</u>	Instrument Refresher Course	C	C	C				
<u>G150</u>	Boom TERPS				T	B	A	
G160	Overwater Navigation Procedures	T	B	A				15

G161	Polar Navigation Procedures	A	A	A				15
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Table 4.2. Ground Continuation Training Requirements (Continued)

Navigator/Boom Operator		Nav Training Level			Boom Training Level			Notes
Code	Training Event	1	2	3	1	2	3	
G170	Celestial Training Device	A	A	SA				
G171	Polar Grid CTD	T	T	B				3
G172	Twilight CTD	T	T	B				3
G173	Southern Latitude CTD	T	T	B				3
G174	Unit Option CTD	AR	AR	AR				3
<u>G182</u>	Hazardous Cargo Training				A	A	A	15
G183	Floor Loading				A	A	A	15
G184	Palletized Cargo Loading				A	A	A	15
G190	Aircraft Servicing	T	B	A	T	B	A	1
G227	Engines, Propulsion, APU	A	A	A	A	A	A	4,8,9,11
G228	Electrics and Fuel Systems for Boom Operators				A	A	A	9,11
G229	AR Systems for Boom Operators				A	A	A	8,9,11
<u>G230</u>	CRM Refresher	A	A	A	A	A	A	7,9
G242	CRM Simulator 1	T	T	T	T	T	T	8
G243	CRM Simulator 2	T	T	T	T	T	T	8,15
G270	Tactics Simulator	A	A	A	A	A	A	8,11,12,15
<u>G280</u>	Small Arms Training (SAT)	B	B	B	B	B	B	
G802	SOAR Ground Training	A	A	A	A	A	A	6
<u>LS02</u>	Aircrew Chemical Defense Training	B	B	B	B	B	B	15
<u>LS03</u>	Combat Survival Training	T	T	T	T	T	T	14,15
<u>LS04</u>	Water Survival Training	T	T	T	T	T	T	14,15
<u>PP01</u>	Flight Physical	A	A	A	A	A	A	5
<u>PP11</u>	Physiological Training	T	T	T	T	T	T	5,13
Q010	SIOP Certification	A	A	A	A	A	A	1,2
Q016	Conventional Certification	AR	AR	AR	AR	AR	AR	15
<u>RR01</u>	Flight Records Review	A	A	A	A	A	A	5

NOTES: (Underlined code indicates standardized across weapons systems.)

1. Required for units with SIOP DOCs.
2. Includes SIOP Certification and Preparation for SIOP Certification.
3. Dual-log with G170.
4. To credit G227, navigators and boom operators must complete the APU portion.
5. Included as ground training for documentation or AFORMS tracking only. Physical expires on last day of birth month.
6. Required for SOAR certified aircrews only.
7. Credit G230 for completing CRM simulator pre-brief.
8. Not applicable for ARC units, NAF, MAJCOM, and Det 2 AMCAOS.
9. Creditable during CFIC training.
10. If not completed in the previous quarter, the present quarter's training must include the previous quarter's training.
11. Not applicable for AETC instructors.
12. Simulator training not required for USAFE. Local ground training course will be substituted to cover applicable material.
13. Must be completed before three year expiration date versus calendar year. USAFE personnel are required to accomplish every 4 years (If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS).
14. For USAFE, G020, LS03, and LS04 are biennial events. See USAFE 11-301 for requirements.
15. Not required for NMR AETC crewmembers.

4.12. Senior Officer Ground Continuation Training Requirements. Senior officers and all other crewmembers maintaining basic qualification (TL E) in the KC-135 are required to complete, as a minimum, the courses listed in table 4.3. Senior officers maintaining MR status will comply with table 4.2.

Table 4.3. Training Level 4 and Senior Officer Ground Continuation Training Requirements.

Code	Event	Frequency
<u>G020</u>	Aircraft Ground Egress Training	B
<u>G130</u>	Instrument Refresher Course (IRC)	C
<u>PP01</u>	Flight Physical	A
<u>PP11</u>	Physiological Training	T
<u>RR01</u>	Flight Records Review	A

NOTE: (Underlined code indicates standardized across weapons systems.) All items of this table, with the exception of RR01, are mandatory grounding items for nonaccomplishment. For PP11, rated officers with greater than 25 years time in service, only require physiological training every 5 years. USAFE personnel are required to accomplish PP11 every 4 years. If 3 years is exceeded, person must accomplish within 90 days of PCS to CONUS.

Table 4.4. Flight Surgeon Ground Continuation Training Events

Event	Code	Frequency
Chemical-biological defense training ²	G010	B
Aircraft ground egress training ¹	G020	A
Anti-hijack ²	G090	B
Laws of armed conflict ²	G100	A
Protection From Terrorism ²	G110	A
ISOPREP Review ²	G120	180
Aircrew Chemical Defense Training ²	LS02	B
Combat Survival ²	LS03	T
Water Survival ²	LS04	T
Flight Physical ¹	PP01	A
Physiological Training ¹	PP11	T
Written Exam	Q001	A
Flight Records Review	RR01	A
<i>A—Annual B—Biennial C—17 Months SA—Semiannual T—Triennial</i>		

NOTES:

1. Mandatory grounding item.
2. Flight Surgeons without a mobility requirement do not need to accomplish this training.

4.13. Flying Continuation Training Requirements. KC-135 flying continuation training requirements are in table 4.5.

4.13.1. Senior officers and staff crewmembers maintaining basic qualification will, as a minimum, maintain FTL E requirements. This requirement also applies to additional aircraft an individual may be qualified in. In addition to always flying with an instructor of like specialty, FTL E senior pilots must be current in takeoffs, landings, and instrument approaches prior to carrying passengers.

4.13.2. Flight Surgeons comply with requirements of AFI 11-101.

Table 4.5. Flying Continuation Training Semiannual Requirements (KC-135E/R/T).

Pilot								Copilot					
Code	Training Event	A	B	C	D	E	CUR	A	B	C	D	CUR	Notes
F010	Formation Departure and Join-Up	2	2	2	2		120	1	1	1	1		1,2,3
F020	Formation	3	3	4	5		120	1	1	2	2		1,2,3
F030	Large Formation Departure and Join-up	1	1	1	1			1	1	1	1		1,2, 3
F040	Large Formation	A	A	A	A			A	A	A	A		1,2, 3
F050	Large Formation Anchor AR	A	A	A	A			A	A	A	A		1,2, 3
F060	AR Formation	2	2	2	2		120	1	1	1	1		1,2,3
M010	Proficiency Sortie	2	2	2	2			2	2	2	2		
M020	Unit Specific Training Sortie	3	5	6	7			3	5	6	7		3,7
M030	Overseas Sortie	1	1	1	1			1	1	1	1		1,2,3
N010	Tanker Rendezvous	4	5	6	7			2	2	3	3		
N020	Tanker En Route Rendezvous	1	1	1	1			1	1	1	1		
N030	Tanker Point Parallel Rndz	2	2	2	2			1	1	1	1		
N040	Tanker Anchor Rndz and AR	1	1	1	1			1	1	1	1		3
N110	Communication Procedures	1	1	2	2			1	1	2	2		7,9
<u>P020</u>	Takeoff	12	18	24	30	6	M	12	18	24	30	M	
P030	Max Mode Takeoff, 30 Flap	1	1	1	1								
P040	Sim Eng Failure Takeoff Continued	2	2	2	2								
<u>P070</u>	Instrument Approach	15	20	26	32	6	M	15	20	26	32	M	
P080	Instr Approach (Auto or Coupled)	2	2	2	2	2		2	2	2	2		
P090	Instrument Approach (Manual)	4	5	6	7			4	5	6	7		
<u>P100</u>	Precision Approach	6	6	8	10	2		6	6	8	10		
<u>P110</u>	Non-Precision Approach	6	6	8	10			6	6	8	10		
<u>P130</u>	Circling	2	2	2	2			2	2	2	2		
<u>P140</u>	Visual Traffic Pattern	2	2	2	2			2	2	2	2		
<u>P160</u>	Missed Approach	2	3	3	3			2	3	3	3		
P170	Appr & GA (Sim Eng Out)	2	3	3	3								
P180	Appr & Landing (Sim Eng Out)	2	2	2	2								
<u>P190</u>	Landing	12	18	24	30	6	M	12	18	24	30	M	
P191	Landing, FS, Reverse Thrust	2	2	2	2		90						6
<u>P192</u>	Landing, Night	2	2	2	2		Q	2	2	2	2	Q	
P200	Touch and Go Landing						M						
P240	Landing Gear Alternate Extension	1	1	1	1			1	1	1	1		8
P250	Main Flap Manual Operation	1	1	1	1			1	1	1	1		8
<u>P260</u>	HAVE QUICK Radio Procedures	2	2	2	2			2	2	2	2		
<u>P270</u>	SECURE RADIO Operation	2	2	2	2			2	2	2	2		3
<u>P280</u>	ACDTQT	A	A	A	A			A	A	A	A		10
P290	Alert Start						365					365	1, 2, 9
R010	Receiver AR	4	5	6	7		45						5

Table 4.5. Flying Continuation Training Semiannual Requirements (KC-135E/R/T) (Continued).

Pilot								Copilot					
Code	Training Event	A	B	C	D	E	CUR	A	B	C	D	CUR	Notes
R020	Receiver AR (Night)	1	2	3	3								5
R035	Receiver AR (Heavy Onload)						365						5
R040	Receiver AR Bkwy and Emergency Separation	1	1	1	1			1	1	1	1		5
R050	Receiver AR Tanker Autopilot Off	2	2	2	2								5
R060	Tanker AR	8	9	12	15		60						
R070	Tanker AR Bkwy Procedures	2	2	2	2			2	2	2	2		
R080	Tanker AR Autopilot Off	2	3	3	3								
R100	Tanker AR Heavy Receiver	2	2	2	2								
S003	Parallel Converging Rndz	A	A	A	A			A	A	A	A		4
S004	En Route Overtaking Rndz	A	A	A	A			A	A	A	A		4
S101	Inflight Comm Profile	A	A	A	A		365	A	A	A	A	365	4
S200	NVG Operation	A	A	A	A		365	A	A	A	A	365	4

NOTES:

1. Pilots assigned to MAJCOM Headquarters, TACC, and AMWC are exempted from this requirement.
2. NAF evaluators may receive credit when observing, instructing, or evaluating these events.
3. AETC instructors are exempted from this requirement.
4. Required for SOAR certified pilots only.
5. Required for receiver qualified pilots only.
6. E-model requirement only.
7. N/A ARC.
8. Annual requirement for ARC.
9. Required for units with SIOP DOCs.
10. Not required for NMR AETC crewmembers.

Table 4.5. Flying Continuation Training Semiannual Requirements (KC-135E/R/T) (Continued).

Navigator		Training Level						
Code	Training Event	A	B	C	D	E	CUR	Notes
F010	Formation Departure & Join-up	1	2	2	2			1,2,3
F020	Formation	1	3	4	5			1,2,3
F030	Large Formation Dept and Join-up	1	2	2	2			1, 2, 3
F040	Large Formation	A	A	A	A			1, 2, 3
F050	Large Formation Anchor AR	A	A	A	A			1, 2, 3
F060	AR Formation	1	1	2	2			1,2,3
M020	Unit Specific Training Sortie	3	5	6	6			3,6
M030	Overseas Sortie	1	1	1	1			1,2,3
N010	Tanker Rendezvous	4	5	6	7		60	
N020	Tanker En Route Rendezvous	1	2	2	2			
N030	Tanker Point Parallel Rndz	1	2	2	2			
N040	Tanker Anchor Rndz and AR	1	1	1	1			3
N050	Navigation Leg	1	2	3	4			
N060	Mission Navigation Leg	A	1	2	3			
N065	Tactical Navigation Leg	A	1	1	1			
N080	Grid Entry and Exit Exercise	1	1	2	2			
N090	Control Time and Position Exercise	A	1	1	1			
N100	INS Airborne Alignment	A	1	2	3			
N110	Communications Procedures	1	2	3	3			6,8
N120	ARDA	1	1	2	2			
N130	Receiver Rendezvous	1	2	2	2			4
N136	Rcvr Rndz Overrun Procedures	A	1	2	2			4
N150	Celestial Position	2	3	4	5			
P240	Landing Gear Alternate Extension	A	1	1	1			7
P250	Main Flap Manual Operation	A	1	1	1			7
P270	SECURE RADIO Operation	1	1	2	2			3
P280	ACDTQT	A	A	A	A			9
P310	Instructor and Evaluator Duties	2	2					
R040	Receiver AR Breakaway and Emergency Separation	1	1	2	2			4
R070	Tanker AR Breakaway and Emergency Separation	A	1	2	2			
S003	Parallel Converging Rndz	A	A	A	A			5
S004	En Route Overtaking Rndz	A	A	A	A			5
S036	SOAR Rendezvous	A	A	A	A		365	5
S101	Inflight Comm Profile	A	A	A	A		365	5
S200	NVG Operation	A	A	A	A		365	5

NOTES:

1. Navigators assigned to MAJCOM Headquarters, TACC, and AMWC are exempted from this requirement.
2. NAF DOV evaluators and 97 AMW instructors may receive credit when observing, instructing, or evaluating these events.
3. AETC instructors are exempted from this requirement.
4. Required for receiver qualified navigators only.
5. Required for SOAR certified navigators only.
6. N/A ARC.
7. Annual requirement for ARC.
8. Required for units with SIOP DOCs.
9. Not required for NMR AETC crewmembers.

Table 4.5. Flying Continuation Training Semiannual Requirements (KC-135E/R/T) (Continued).

Boom Operator		Training Level					
Code	Training Event	A	B	C	D	CUR	Notes
M010	Proficiency Sortie					60	2
M030	Overseas Sortie	A	A	1	1		2
N140	Celestial Observation	1	2	2	3		
P240	Landing Gear Alternate Extension	1	1	1	1		4
P250	Main Flap Manual Operation	1	1	1	1		4
P270	SECURE RADIO Operations	1	1	1	1		1
P280	ACDTQT	A	A	A	A		5
P300	Cargo Loading					180	4
P310	Instructor and Evaluator Duties	2	2				
R070	Tanker AR Breakaway and Emergency Separation	1	1	2	3		
R100	Tanker AR, Heavy Receiver	1	2	2	3		
R120	Contacts	15	18	24	30	45	1
R130	Night Contacts	5	6	8	10	180	1
R140	Tanker Manual Contact	2	3	4	5		
R150	Fighter Contact	2	2	2	3	180	1
R160	Radio Silent Breakaway	1	1	1	1		
S003	Parallel Converging Rndz	A	A	A	A		3
S004	En Route Overtaking Rndz	A	A	A	A		3
S101	Inflight Comm Profile	A	A	A	A	365	3
S200	NVG Operation	A	A	A	A	365	3

NOTES:

1. BOs assigned to MAJCOM headquarters, TACC, NAFs, and AMWC will use these tables with the following exceptions: (1) P300 currency requirement is expanded to 1/365 days for MAJCOM; (2) R120 currency requirement is expanded to 1/60 days; (3) R150 currency is 1/365 days with no frequency requirements; and (4) M030 is not required.
2. AETC instructors are exempted from this requirement.
3. Required for SOAR certified BOs only.
4. Annual requirement for ARC.
5. Not required for NMR AETC crewmembers.

4.14. ATD Credit for Training Requirements. Simulator training augments flight training; it does not replace it. *Flight currency cannot be updated in the simulator.* However, pilots may credit flight training events in table 4.6 in the OFT. AMC sims have been rated training value Code 1 for all items in table 4.6.

Table 4.6. Flight Events Creditable In ATD.

Code	Training Event	Number Creditable
N165	Fixing	ALL
P006	Airwork	ALL
P015	Instrument Departure	ALL
P018	Copilot Takeoff Climb Duties	ALL
P026	Takeoff and Climb Procedures	ALL
P027	EWO Departure	ALL
P051	Tactical VFR Departure	ALL
P070	Instrument Approach	1 Per Sim
P071	Holding	ALL
P072	Penetration (Published)	ALL
P073	En Route Descent	ALL
P100	Precision Approach	1 Per Sim
P101	ILS Approach	ALL
P102	ILS (Gyro Mode)	ALL
P103	PAR Approach	ALL
P110	Non-Precision Approach	1 Per Sim
P111	VOR/TACAN Procedures	ALL
P112	TACAN, VOR, and Localizer Approach	ALL
P113	ASR Approach	ALL
P160	Missed Approach (Manual)	1 Per Sim
P171	Approach and Go-Around Simulated Engine-Out, Rudder Power Off	ALL
P280	ACDTQT	ALL
P310	Instructor and Evaluator Duties	ALL
P311	Flight with an Instructor	ALL
P365	Autopilot Off Cruise	ALL

NOTE: Because of the wide range of conditions and medications, the flight surgeon will need to determine whether an individual can perform training duties in the OFT/WST when placing the individual on DNIF status. Consideration must be given to the impact that the condition or medication will have on the individual's ability to learn from the OFT/WST training.

Chapter 5

UPGRADE TRAINING

5.1. Scope. This chapter identifies prerequisites and training requirements for upgrade to AC, instructor, and evaluator.

5.2. First Pilot (FP). (Not applicable to KC-135 Aircrew)

5.3. Aircraft Commander (AC):

5.3.1. General. Flying time prerequisites required for upgrade are based on a copilot having gained knowledge and judgment required to effectively accomplish unit missions. Unit commanders must ensure continuation training programs emphasize these areas. AC candidates must have an in-depth knowledge of systems, procedures, and instructions before entering the formal upgrade program. The aircraft commander upgrade program (KC-135AC) (formerly PUP) is a formal training course for KC-135 copilots upgrading to AC. The minimum flying hour requirements for AC are listed in paragraph 2.3.1. All AC upgrades, including in-unit AC upgrades (KC-135ACA), will complete ATS courseware at the formal school (ANG waiver authority for guard units is ANG/XOOM). Additionally, the following guidance applies:

- Select upgrade candidates based on upgrade potential, retainability, and mission requirements.
- Use the approved ATS courseware.

5.3.1.1. AFCAT 36-2223 details prerequisites and special requirements for the formal school AC upgrade course. Units should send names of candidates to fill allocated AC upgrade quotas to HQ AMC/DOTF no later than 45 days prior to the class start date. The CCTS syllabus lists training events for upgrade training at the formal school.

5.3.1.2. In-unit AC upgrade flight training will be accomplished only when formal school upgrade quotas are not available. No HQ AMC/DOT waiver is required to accomplish in-unit AC upgrade flight training. AC upgrade academic only (ACA) quotas will be allocated by HQ AMC/DOTF on request. Flight training requirements for in-unit AC upgrade training are listed in table 5.1. Units should design in-unit AC upgrade training programs to provide quality training in a structured program similar to CCTS.

Table 5.1. In-Unit AC Upgrade Requirements.

Code	Training Event	Number	Notes
A002	KC-135 AC Upgrade Academic Course	1	
A052	Receiver AR Indoctrination	1	5
AA01	MAJCOM Qualification Evaluation	P	
F010	Formation Departure and Join Up	2P	
F020	Formation	2P	
F060	AR Tanker Formation	2P	
G020	Aircraft Ground Egress Training	1	
G025	Aircraft Field Trip	1	
G130	Instrument Refresher Course	1	
G250	Aircrew Training Device	3	
M001	Sortie (includes Flight Evaluation)	8P	
N015	Tanker Alternate Rendezvous	P	
N016	Tanker Rendezvous Overrun Procedures	P	
N020	Tanker En Route Rendezvous	2P	
N030	Tanker Point Parallel Rendezvous	2P	
N130	Receiver Rendezvous	4P	5
N132	Receiver Point Parallel Rendezvous	2P	
N135	Receiver Alternate Rendezvous	2P	5
N136	Receiver Rendezvous Overrun Procedures	P	5
P007	Approach to Initial Buffet and Recovery	P	4

Table 5.1. In-Unit AC Upgrade Requirements. (Continued)

Code	Training Event	Number	Notes
P011	Takeoff-Night	2P	
P012	Takeoff-Gyro Mode	2P	
P015	Instrument Departure	5P	
P020	Takeoff	5P	
P026	Takeoff and Climb Procedures	7P	
P030	Max Mode T/O, 30 Flap	2P	
P040	Simulated Engine Failure, Takeoff Continued	5P	
P071	Holding	2P	
P072	Penetration (Published)	2P	
P073	En Route Descent	2P	
P080	Instrument Approach (Auto or Coupled)	1	
P100	Precision Approach	4P	
P101	ILS Approach	6P	
P102	ILS (Gyro Mode)	2P	
P103	PAR Approach (If available)	P	2
P110	Non-Precision Approach	6P	
P111	VOR/TACAN Procedures	7P	
P112	TACAN, VOR, and Localizer Approach	7P	
P113	ASR Approach	P	2
P130	Circling	2P	
P160	Missed Approach	6P	
P170	Approach and Go-Around, Simulated Engine-Out	5P	
P171	Approach and Go-Around, Simulated Engine-Out, RPO	2P	
P180	Approach and Landing, Simulated Engine-Out	7P	
P190	Landing	20P	
P191	Landing, Full Stop, Reverse Thrust (If Applicable)	2P	
P192	Night Landing	4P	
P194	Landing, 30-Degree Flaps	2P	
P196	Landing, Full-Stop	7P	
P200	Touch-and-Go Landing	10P	
P240	Landing Gear Alternate Extension	2P	
P250	Main Flap Manual Operation	2P	
P260	HAVE QUICK Radio Procedures	P	
P360	Mission Planning and Briefing	6P	
P365	Autopilot Off Cruise	1	
P366	Checklist Procedures and Use	7P	
P367	Crew Coordination	7P	
P369	Aircraft Equipment Operation	P	
P380	Spoiler and Lateral Control Demonstration	1	
P382	Trim Demonstration	1	
P383	Simulated Jammed Stabilizer Demonstration	1	
Q001	Open-Book Qualification Examination	P	
Q002	Closed-Book Qualification Examination	P	
Q012	Supervision of Copilot Takeoffs, Landings and Rcvr AR	3P	
R010	Receiver AR	7P	5
R020	Receiver AR (Night)	2P	5
R035	Receiver AR (Heavy Onload)	P	5
R040	Receiver AR Breakaway and Emergency Separation	2P	5

Table 5.1. In-Unit AC Upgrade Requirements. (Continued)

Code	Training Event	Number	Notes
R050	Receiver AR, Tanker Autopilot Off	3P	5
R060	Tanker AR	6P	
R070	Tanker AR Breakaway and Emergency Separation	4P	
R080	Tanker AR Autopilot Off	4P	
R180	Radio Silent Visual Signals	2P	
R225	Reverse AR	F	3

NOTES:

1. For in-unit AC upgrade, accomplish F010 FTO training once as lead and once in any following position. For in-unit pilot requalification, F010 will not be accomplished as lead.
2. For in-unit AC upgrade, if ASR and PAR approaches are not readily available as determined by the operations officer, this training event may be accomplished in OFT. Method of accomplishment will be annotated in the individual's training record.
3. For in-unit AC upgrade, accomplish reverse refueling training as an instructor-led ground training seminar.
4. OFT/WST only.
5. Required for receiver AR qualification only.

5.3.2. AC upgrade training is divided into two categories: (ANG: See chapter 7.)

5.3.2.1. Category I is a maximum 45-day orientation period covering AC responsibilities. The individual may continue to perform copilot duties on a crew. Category I training consists of ground and flight training completed prior to commencing category II training. Proficiency is not required for category I training. All ground training currency events, e.g., altitude chamber, annual physical, etc., will cover the period up to category II training completion. Category I training requires a minimum of two left-seat familiarization sorties within 45 days prior to arrival at CCTS and will consist of the training events listed in table 5.2. One sortie will include a full mission profile. The other sortie need not be a full mission profile, but will include at least 1 hour dedicated to left-seat pattern training for the AC upgrade candidate. AC upgrade candidates must hand-carry copies of category I training reports to CCTS.

Table 5.2. AC Upgrade Category I Training Events.

Code	Training Event	Number
P020	Takeoff	2
P040	Simulated Engine Failure, Takeoff Continued	3
P170	Approach and Go-Around, Simulated Engine-Out	3
P171	Approach and Go-Around, Simulated Engine-Out, Rudder Power Off	1
P180	Approach and Landing, Simulated Engine-Out	3
P190	Landing (to include one full stop)	6
P194	Landing, 30-Degree Flaps	3
P200	Touch-and-Go Landing	6
P360	Mission Planning and Briefing	2
P366	Checklist Procedures and Use	2
P367	Crew Coordination	2
P369	Aircraft Equipment Operation	2
R010	Receiver AR (If applicable)	1
R060	Tanker AR	1

5.3.2.2. Category II consists of the formal flight and academic training.

5.3.2.3. Declare individuals formally entered in the formal AC upgrade program at CCTS or in-unit AC upgrade CAT II training program NMR and remove from continuation training. However, individuals remain a MR resource for real world, nonexercise purposes as long as they are current. Qualification evaluations may expire while the individual is completing AC upgrade flight training. Declare individuals MR ACs on completion of mission qualification training and validation by a review and certification board. (ANG: See chapter 7.)

5.3.2.4. Units should submit the inflight evaluation completion date for individuals completing AC upgrade in-unit to the appropriate MAJCOM training management branch within 30 days of checkride completion for purposes of computing active duty service commitments (**not applicable to ANG and AFRC**). Course completion information must include the course number, with ACA class start and graduate dates.

5.3.2.5. Graduates of an aircraft commander course will be designated NMR aircraft commanders. NMR aircraft commanders will accomplish aircraft commander continuation training requirements (training level assigned by squadron commander) and can serve as a MCF or CP augmentee while nonmission ready (must be current and qualified). MR status, on completion of mission qualification training and associated evaluation and certification, will be validated by a review and certification board. There is no flying-hour requirement for MR status.

5.3.2.6. AMC mobility enhancement crossflow program-selects will attend aircraft commander training for the crossflow aircraft. Crossflow selects will be entered into AC mission qualification training upon arrival at the unit. Delays to mission AC upgrade are contrary to the intention of the crossflow program and will be avoided.

5.4. Aircrew Instructor Program. To assure a professionally-trained instructor force, all KC-135 crewmembers initially upgrading to instructor must graduate from the KC-135 CFIC. Course is designed to teach selected crewmembers fundamentals and concepts of instructing. Instructor candidates will be selected based on experience, judgment, ability to instruct, flying skill, and technical knowledge. Individuals who previously attended a formal major weapon system instructor school and were qualified instructors in another MWS, and meet the minimum flying hour requirements of table 5.3, may upgrade to KC-135 instructor in-unit. Completion of A010, Instructor Academic Training, is not required. Use table 2.4 to conduct in-unit instructor upgrade.

5.4.1. Instructor Prerequisites—minimum flying time requirements for instructor upgrade are in table 5.3.

Table 5.3. Instructor Upgrade Flying Time Prerequisites.

Crew Position	Total Flying Time (3)	Total -135 Time
Pilot (1)	1500 hours	and 300 hours
Navigator	750 hours	and 150 hours
BO (2)	1500 hours 700 hours	and 300 hours or and 500 hours

NOTES:

1. Requires minimum of 6 months experience as an AC.
2. Requires minimum of 3 years in the BO career field.
3. Total flying time is career military flying time logged in the crew position the individual will upgrade in. Time includes "student," "other," and level C+ simulator time, but does **not** include time logged other simulators.
4. All "level C+" (as certified by HQ AMC/DOT) simulator time in weapon system may be included as -135 time and total time for upgrade.
5. The operations group commander may waive the minimum flying hour requirements for instructor upgrade.

5.4.2. CFIC:

5.4.2.1. Serves as the formal aircrew instructor upgrade program for the KC-135.

5.4.2.2. Units should send the names of candidates to fill allocated CFIC quotas to HQ AMC/DOTF no later than 30 days prior to class start date.

5.4.2.3. Instructor candidates must arrive at CFIC current and qualified in their unit assigned aircraft. Units will provide additional training to CFIC candidates prior to school attendance. Training must include, but is not limited to the following: (**ANG and AFRC: See chapter 7 for additional requirements.**)

5.4.2.3.1. Pilots—Minimum of 3 right seat flights with one full profile sortie (to include AR). Table 5.4 lists required events to prepare IP candidates for CFIC profiles.

Table 5.4. Pilot Pre-CFIC Training.

Code	Event	Number	Code	Event	Number
P012	Takeoff-Gyro Mode	1	P215	Landing Attitude Demonstration	2
P040	Simulated Eng Failure, Takeoff Cont	2	P240	Landing Gear Alternate Extension	1
P100	Precision Approach	2P	P250	Main Flap Manual Operation	1
P110	Non-Precision Approach	2P	P360	Mission Planning and Briefing	1
P171	App & Go, Sim Eng Out, Rud Pwr Off	2	P361	Preflight (Right Seat)	1
P180	Landing , Simulated Engine Out	2	P382	Trim Demonstration	1
P193	Landing, 50-Degree Flaps	2P	P383	Simulated Jammed Stabilizer Demonstration	2
P194	Landing, 30-Degree Flaps	2	P380	Spoiler and Lateral Control Demonstration	1

5.4.2.3.2. Navigators—Minimum of two flights with IN candidate acting in the role of instructor on both flights. Table 5.5 lists required events to prepare IN candidates for CFIC profiles.

Table 5.5. Navigator Pre-CFIC Training.

Code	Event	Number	Code	Event	Number
N005	Mag Course Departure	F	N120	ARDA	2
N010	Tanker Rendezvous	2	N175	INS/DNS Radar Present Pos Update	1
N020	Tanker En Route Rendezvous	1	N176	INS/DNS Manual Position Update	1
N030	Tanker Pt Parallel Rendezvous	1	N180	Target Timing Wind	1
N060	Mission Nav Leg	1	P240	Landing Gear Alternate Extension	2
N070	Degraded Equipment Nav Leg	1	P250	Main Flap Manual Operation	2
N080	Grid Entry and Exit Exercise	1	P360	Mission Planning and Briefing	2
N100	INS Airborne Alignment	2	P361	Preflight	1

5.4.2.3.3. BOs—Minimum of 3 flights with IBO candidate acting in role of instructor on all flights. The first sortie should concentrate on instructor positioning, instructor techniques, and note taking. One sortie, preferably the final one, should be flown with operations superintendent or training manager. Review of manual moment computations is also recommended. Table 5.6 lists required events to best prepare IBO candidates for CFIC profiles.

Table 5.6. Boom Operator Pre-CFIC Training.

Code	Event	Number	Code	Event	Number
A017	Publication/Directive Knowledge/Use	2	P340	Briefing and Control of Passengers	2
N140	Celestial Observation	1	P360	Mission Planning and Briefing	2
P240	Landing Gear Alternate Extension	2	R140	Tanker Manual Contact	2
P250	Main Flap Manual Operation	2	R220	Manual Boom Latching	3

Note: R220 - Proficiency required for ARC.

5.4.2.4. Each instructor candidate is responsible for bringing necessary personal flying equipment, required regulations, and completed preattendance materials. Copies of preattendance training reports, aircrew training folder, medical records, individual data summary, flight history, and any required waivers should be hand-carried to CFIC in-processing. The flight evaluation folder is not required.

5.4.2.5. The instructor candidate's squadron will ensure the preattendance workbook and flights are completed prior to the candidate departing for CFIC. The squadron commander will sign the preattendance workbook certifying completion of the prerequisites. Failure to complete the pre-attendance workbook or flights without a waiver will result in the candidate being returned to home unit before training begins.

5.4.2.6. Squadrons should provide candidates with the following publications with appropriate supplements for use at CFIC:

- AFI 11-206, *General Flight Rules* All
- AFI 11-218, *Aircraft Operation and Movement on the Ground*..... Pilot

• AFI 11-401, <i>Flight Management</i>	All
• AFI 11-408, <i>Aircrew Standardization/Evaluation Program—Organization and Administration</i> , with appropriate MAJCOM supplement.....	All
• AFMAN 11-217, Volume 6 <i>Instrument Flying</i>	Pilot
• AFM 51-40 (AFPAM 11-216), <i>Air Navigation</i>	Nav
• MCI 10-202 , Volume 6, <i>C/KC-135 Aircrew Training Program Policies, Organizations, and..... Administration (PA)</i>	All
• MCI 11-235, <i>C/KC-135 Operations</i>	
• Volumes 1-9, 17, 21 and 25.....	All
• Volume 11.....	Nav
• Volumes 13 and (forthcoming) 26	BO
• AMCI 11-301, <i>Aircrew Life Support (ALS) Program</i>	All
• AMCPAM 11-4 (SACP 55-10)	
• Volume 1, <i>KC-135R Tanker Pilot Operating Techniques</i>	Pilot
• Volume 2, <i>KC-135 Navigation Techniques (Pending Publication)</i>	Nav

5.4.2.7. CFIC Training Requirements:

5.4.2.7.1. The CFIC syllabus lists CFIC training requirements.

5.4.2.7.2. The ATS contractor administers post-academic tests to each candidate.

5.4.2.7.3. Multiple simulated emergencies are accomplished during CFIC flight training. These maneuvers are included in the curriculum to broaden the experience base of the candidate and will only be accomplished at CFIC.

5.4.2.7.4. All navigators, boom operators and all active duty R-model pilots will receive an initial inflight instructor evaluation. ARC will have the option to request an evaluation. The evaluation will be in compliance with AFI 11-408, AMC Supplement 1.

5.4.2.7.5. CFIC candidates demonstrating unsatisfactory progress will be removed from training and returned to home station. (See paragraph 2.11.)

5.4.2.8. CFIC Documentation for ARC personnel or active duty personnel not completing a CFIC administered evaluation:

5.4.2.8.1. The closeout CFIC MC Form 46 will contain remarks by the 97 TRS/CC recommending the candidate for an instructor evaluation, removal from instructor considerations, or reconsideration for instructor training at a later date. The closeout report will include results of academic tests and the inflight progress check. The course and class numbers and class start and graduation dates for completed courses will be annotated on the closeout report.

5.4.2.8.2. When an instructor candidate has successfully completed CFIC and a copy of the AF Form 8 has been received by the 97 TRS, a CFIC certificate of completion will be sent to the individual's squadron with an information copy to the supporting Military Personnel Flight (MPF). MPF will update the individual's records and update active duty service commitment dates, if applicable.

5.4.2.8.3. Successful completion of an initial instructor check and certification by the unit review and certification board is the closing actions of CFIC. Failure to accomplish this final step for any reason requires appropriate action in accordance with AFI 11-402.

5.4.3. Central Flight Instructor Short Course (CFICS). An abbreviated CFIC course for highly experienced ANG and AFRC candidates only. ARC crewmembers should see MAJCOM-specific guidance for pre-CFICS flight training. To attend CFICS, ARC crewmembers must meet the following prerequisites:

- **Pilots**—Candidates should meet one of these requirements:
 - Locally upgraded KC-135 IPs requiring CFIC to conduct upgrade training, or
 - KC-135 ACs with a minimum of 2,500 total flying hours, or

- Former fully qualified instructors from another major weapon system who meet flying hour requirements of table 5.3.
- **Navigators**—Candidates must meet the flying time prerequisites of table 5.3.
- **Boom Operators**—Candidates must meet the flying time and experience requirements of table 5.3 with the exception that the minimum total flying time requirement is 1,000 hours.

5.4.4. Faculty Training Course (FTC). FTC is taught at the formal school to prepare newly assigned instructors for CCTS duties. All instructors conducting initial qualification flying training should be graduates of FTC (N/A ARC). Training requirements are listed in the CCTS syllabus.

5.5. Flight Examiner Qualifications. The KC-135 has no formal flight examiner upgrade program. Crewmembers authorized to evaluate aircrews are qualified in accordance with AFI 11-408, MAJCOM supplement. All flight examiners and evaluators must be fully qualified instructors (Exception: NAF/CC or OG/CC).

5.6. Special Qualifications:

5.6.1. AR Qualifications. Document additional AR qualifications on AFORMS using events Q21-Q32. Other qualifications may be added as required.

5.6.2. Receiver AR:

5.6.2.1. Training required to qualify ACs and navigators in receiver rendezvous and AR procedures specified in AR TOs. Document receiver AR qualification in the individual's FEF according to AFI 11-408.

5.6.2.2. The training program consists of practice in rendezvous and AR to include closure, contacts and breakaways. Instructor will demonstrate all limits and manual boom latching. Student must be able to establish contact under simulated conditions of radio silence, pilot-director lights out, and tanker autopilot off. Student must be declared safe in day activity by an instructor prior to advancing to night activity. During the hours of darkness, conduct practice in rendezvous, closure, and contacts until able to maintain contact for 5 minutes without a disconnect.

5.6.3. Low-Altitude AR (LAAR):

5.6.3.1. Limit LAAR training to crewmembers specifically selected by the operations group commander based on experience, demonstrated airmanship, and retainability. Crewmembers trained under previous taskings may be considered qualified based on squadron commander evaluation and recertification. Document certification in AFORMs using event Q017.

5.6.3.2. Training Program. Flight training will be in concert with operational taskings. Conduct all associated LAAR training no lower than 3000 feet AGL. Include low altitude awareness training, low-altitude navigation ground training, and the hazards involved in flying at high speeds in the low-altitude environment. Topics will include deconfliction with general aviation traffic, see-and-avoid techniques, migratory bird routes, chart updating procedures, terrain features to include effects of ridges, valleys, and low-level wind shear. AR formation considerations such as rendezvous, missed rendezvous, and breakaway procedures will also be discussed. Low-altitude navigation ground instruction will include segments on governing directives, chart preparation and updating, flight and fuel planning, navigation aids available and their use, and course and time control. After initial familiarization, the operations group commander will direct crew training. Schedule the familiarization sortie against the same type receiver as the unit is tasked to support when possible, i.e., fighter type aircraft or heavy aircraft. The familiarization sortie will include rendezvous, cell descent to AR altitude, AR cell breakup and climb-out. A flight commander or previously trained instructor of like specialty will conduct familiarization flight training. Do not conduct CWD flight training during LAAR training. While supported plans may require LAAR during chemical warfare conditions, CWD training will transfer from high-altitude CWD training.

5.6.4. EMCON Options 3 and 4:

5.6.4.1. Squadron commander certification is required to accomplish EMCON 3 or 4 procedures during formation, rendezvous, and AR on both operational and training sorties. All members of the crew must be certified or in training under the supervision of a like specialty instructor. Thorough coordination with the receiver aircrew is required for units to

practice EMCON 3 or 4 on nonoperational training missions. Coordination should be accomplished during mission planning, and in no case will crews launch under EMCON 3 or 4 without prior coordination with the receiver crew. Document certification on AFORMS using events Q060 and 070.

5.6.4.2. Training Program. Training requirements will be determined by the squadron commander based on the crewmember's experience and the unit's mission. BOs with less than 200 flying hours must receive a minimum of two flights with an instructor stressing radio silent procedures prior to certification.

5.6.5. Formation Lead:

5.6.5.1. The intent of the program is to give ACs in-depth training in formation lead responsibilities. Squadron commanders should certify only those ACs who have completed the minimum training requirements listed below and who possess experience in all facets of their unit's formation missions. Document certification on AFORMS using event Q011.

5.6.5.2. Training Program. The minimum formation lead training program should include:

5.6.5.2.1. Study of formation procedures found in MCI 11-235, volume 25, AR TOs, and other associated directives and study guides.

5.6.5.2.2. Squadron administered closed book examination critiqued to 100 percent.

5.6.5.2.3. Minimum of 3 full profile formation flights (minimum of 2 as lead) under the supervision of an instructor pilot. To the maximum extent possible, flights should include AR operations with multiple receivers, both heavy and fighter-type aircraft. At least one formation flight should be flown as part of a large formation (3 or more aircraft). AC upgrades may credit up to 2 formation flights accomplished during upgrade to AC.

5.6.5.2.4. Certification by the squadron commander.

NOTE: Formation lead certification activity should **not** be accomplished concurrently with initial qualification training. Formation training accomplished during CCTS or in-unit upgrade is creditable for AC upgrades and requalification only. Formation lead certification is **not** a mission qualification training requirement. All IPs will be formation lead qualified.

5.6.6 Aircraft Commander Supervision of Copilot Takeoffs, Touch and Go Landings, and Receiver Air Refueling:

5.6.6.1. Certification by SQ/CC to allow aircraft commanders to perform their own touch and go landings (Q050) and to supervise unit copilot takeoffs, touch and go landings, and receiver air refueling (if applicable) (P320). Document certification in AFORMS using event Q050 and P320.

5.6.6.2. Training Program. The following will be accomplished prior to ACs performing his/her own touch and go landings and supervising a unit copilot's takeoffs, touch and go landings, and receiver air refueling:

5.6.6.2.1. SQ/CC directed ground and in-flight certification training in touch and go procedures.

5.6.6.2.2. In-flight certification of two touch and go landings performed by the AC and one performed by the instructor (not required if performed during formal school inflight evaluations).

5.6.6.2.3. SQ/CC's certification allowing an AC to supervise copilot touch and go landings (may occur after an instructor pilot observes and certifies his/her touch and go proficiency).

5.6.6.2.4. Touch and go training may be accomplished concurrently with an in-unit upgrade or qualification program.

5.6.7. Special Operations:

5.6.7.1. Training and squadron commander certification for designated crewmembers flying AR missions in support of special operations forces. Document in AFORMS using event Q015.

5.6.7.2. Training Program. Training should emphasize those procedures that vary from standard tanker AR procedures found in AR TOs.

5.6.7.2.1. Initial ground training events include:

- G801 Initial SOAR Training
- G803 NVG Training and Qualification
- G804 Ground Communications Training
- G805 Missed Rendezvous Procedures

5.6.7.2.2. Initial flight events include:

- N013 Emission Option 3
- S003 Parallel Converging Rendezvous*
- S004 En Route Overtaking Rendezvous*
- S022 SOAR Tanker Formation
- S036 SOAR Rendezvous (Navigator Only)*
- S101 Inflight Comm Training Profile*
- S200 NVG Operation*

NOTE: Events listed with "*" have a frequency or currency as prescribed in table 4.4.

Chapter 6

KC-135 AIRCREW TRAINING SYSTEMS (ATS) USER'S GUIDE

6.1. Scope. This chapter establishes the concept of contractor training, identifies responsibilities, and provides guidelines to be used in conducting and managing effective qualification and recurring KC-135 academic and ATD training programs.

6.2. General Information. The aircrew training system (ATS) is a civilian contractor-provided service. The ATS contractor provides academic and ATD instruction at the formal school and at each ATS site. Air Force instructors and evaluators conduct flight training and administer all evaluations. The ATS contractor guarantees students will be trained to meet government standards.

NOTE: Guidance in this chapter is extracted from the ATS contract, quality assurance directives, and contractor-provided courseware procedures.

6.2.1. **Applicability.** This chapter applies to all aircrew members attending formal schools using ATS courseware or attending ATS refresher or phase training.

6.2.2. **Dedicated Training Time.** It is imperative that students complete their training in a timely and uninterrupted manner. Students will enroll on a full-time basis. Relieve students of duties not directly related to training. **EXCEPTION:** Supervisory personnel may continue their normal duties as time permits.

6.2.3. **ATS Course Prerequisites.** Each ATS course is designed and based on student prerequisites being met. Prerequisites may include a minimum number of flying hours, squadron operations officer recommendation, and completion of applicable training guides.

6.2.4. **Course Material.** The ATS contractor will provide all student training guides required to complete a course of instruction.

6.3. Lesson Objectives. Contractor-developed lesson objectives are based on the requirements in this instruction. Changes may be made through the aircrew critique program run by contractor or by contacting Det 2 AMCAOS/ 97th OSS/DOU or the ATS contractor.

6.4. Government and Contractor Interface:

6.4.1. **Aircrew Training.** The ATS contractor will provide KC-135 crewmembers with ground-based training required to meet objectives for initial qualification, requalification, upgrade, senior staff, difference and continuation training.

6.4.2. **Unsatisfactory Trainee Progress:**

6.4.2.1. The ATS contractor will provide feedback to the unit operations officer for trainees displaying substandard performance, lack of preparation or participation, or poor attitude during any ATS contractor-conducted training.

6.4.2.2. If at any time during a trainee's ATS ground instruction, progress is considered unsatisfactory, the ATS contractor will notify the responsible unit training manager. On receiving documentation and recommendations from the ATS contractor, the responsible unit will review the trainee's record and determine whether to continue, modify, or terminate training.

6.4.3. **Aircrew Evaluation:**

6.4.3.1. **General.** The decision of the Air Force evaluator as to the ability of a crewmember to meet qualification levels as set forth in the applicable MAJCOM supplement to AFI 11-408 shall be final and will not be subject to question by the contractor.

6.4.3.2. **Initial Qualification Evaluations.** In the event of an unqualified rating, the contractor is responsible for all retraining (ground-based) in those phases and subphases determined to be under the direct control of the contractor. A joint

contractor and Air Force review board will review crewmember performance and determine those phases of the ground-based courses that require additional training to meet qualification levels.

6.4.3.3. Recurring Evaluations. In the event of an evaluation failure, the appropriate ATD should be used to the maximum extent possible for retraining and rechecks. In all cases, the unit must coordinate with the ATS contractor for ATD and instructor availability. In some cases, it may be necessary to cancel or reschedule training to accomplish the desired corrective actions.

6.4.4. Responsibilities:

6.4.4.1. ATS Contractor. Each ATS site will provide academic and ATD training for KC-135 aircrew requalification, upgrade, senior staff, difference and continuation training programs to meet course objectives.

6.4.4.2. HQ AMC/DOT:

6.4.4.2.1. Provide overall management authority for KC-135 contract training.

6.4.4.2.2. Serve as OPR for MCI 10-202, Volume 6.

6.4.4.2.4. Ensure that contractor provided academic and ATD training complies with policies, guidelines, and directives established by AMC headquarters and the current training contract.

6.4.4.2.5. Ensure KC-135 contractor aircrew training performance objectives are achieved by monitoring overall contractor performance and submitting quality assurance program documentation when required.

6.4.4.2.6. Act as AMC focal point for review of all recommended initiatives directed toward the KC-135 training contract. This includes recommendations for changes submitted by contractor or other Air Force agencies.

6.4.4.2.7. Convene and chair KC-135 Command Curriculum Review Workshop to periodically review the entire program for currency, applicability, and effectiveness. Publish meeting minutes, assign taskings to appropriate agencies, and monitor suspenses.

6.4.4.3. HQ AETC/XOTA, HQ AFRC/DOA, ANG/XOOM, HQ PACAF/DOTT, and HQ USAFE/DOTO:

6.4.4.3.1. Monitor all actions associated with the KC-135 training program through close coordination with their associated KC-135 units; DET 2, AMCAOS/DOU; HQ AETC/DOU and HQ AMC/DOT. Provide constructive reports and inputs concerning the training program as required.

6.4.4.3.2. Provide assistance and support to HQ AMC/DOT (program manager) and other appropriate agencies, as required, to support the overall KC-135 training program.

6.4.4.4. HQ AETC/DOU:

6.4.4.4.1. Ensuring instruction is of the highest quality through the review of crewmember critiques, evaluator feedback, CCTS feedback, and their own evaluations.

6.4.4.4.2. Reviewing and evaluating the task analysis, objective hierarchy, and contractor courses and training materials for accuracy, currency, and effectiveness.

6.4.4.5. Det 2 AMCAOS/DOU:

6.4.4.5.1. Detachment 2 will conduct an annual SIMCERT on all ATDs. SIMCERT is run on a two-cycle system and includes inventory inspection and quality assurance issues inspection for the contract.

6.4.4.5.2. Monitoring training device utilization, availability, and ensure equipment malfunctions are corrected through coordination with the ATS contractor when required.

6.4.4.5.3. Det 2, AMCAOS will conduct annual contract compliance evaluations on all KC-135 ATS sites and report to HQ AMC/DOT on the results.

6.4.4.5.4. Detachment 2 will schedule subject matter experts for technical interchange meetings with the ATS contractor. Det 2 will also schedule crewmembers required by the contractor for courseware development in Individual Tryouts (ITOs) and Small Group Tryouts (SGTOs).

6.4.4.6. Air Force-Appointed ATS Project Officers (PO) and QARs. POs and QARs are primary focal points and liaisons between the Air Force and contractors at each ATS site. POs and QARs are the only Air Force personnel empowered to evaluate contractor compliance with the ATS contract. These individuals are the only unit-level office that can direct the contractor to perform or stop work.

6.4.4.7. Wings and Groups:

6.4.4.7.1. Provide constructive reports and inputs concerning the KC-135 training program as specified in chapter 1 of this regulation.

6.4.4.7.2. Provide assistance and support with subject matter expertise (SME) when requested by HQ AMC/DOTK, Det 2 AMCAOS, or HQ AETC/DOU.

6.4.4.7.3. Review AFCAT 36-2223 and adhere to guidance and procedures concerning requesting, allocating, sub-allocating, and confirming attendance at scheduled formal training courses. Close coordination with the formal school quota manager (HQ AMC/DOTF) is imperative to ensure effective utilization of training slots and contractor resources.

6.5. ATS Courses:

6.5.1. Formal School Courses. Table 6.1 lists the courses offered by the KC-135 schoolhouse. Table 6.2 lists the courses offered at the McClellan AFB C-135 FST training site for KC-135E and non-tanker C-135B/E units. MAJCOMS determine C-135 course suitability for their particular requirements and may use these courses as if they were AFCAT 36-2223 formal courses.

- ATS Formal Course Prerequisites—Each ATS course is designed and based on certain prerequisites being met by the trainee prior to course entry. In order for the ATS contractor to guarantee a trainee is trained to meet government standards and will satisfactorily complete flight training and evaluations, all prerequisites must be complied with unless waived by the appropriate agency in accordance with the guidance in chapter 1.

6.5.2. Recurring Academic and ATD Training:

6.5.2.1. General. Recurring academic and ATD training is designed to ensure that prescribed subject material is presented in a realistic manner on a programmed basis. Instruction will be provided by instructors trained and employed by the ATS contractor and through course materials developed by the training contractor.

6.5.2.2. Objective. Ensure all aircrews maintain the proficiency required to safely operate the aircraft and effectively perform the assigned mission. Crewmembers will utilize the training devices to enhance the training areas that the ATDs are particularly well suited to accomplish (e.g., windshear/microburst training, low visibility approaches, systems knowledge, emergency/abnormal procedures, degraded navigation systems, etc.).

6.5.2.3. Responsibilities:

6.5.2.3.1. ATS contractor will:

6.5.2.3.1.1. Ensure the OFT, WST, CTD, BOPPT, CPT, FST and CLT, along with other devices and training aids, enhance flight training programs. Scheduled lessons and mission overviews will be conducted by the instructor prior to each ATD lesson. All necessary data to complete the training device mission or assigned task will be provided during the premission period.

6.5.2.3.1.2. The ATS contractor will ensure their instructors:

- Provide an environment for simulator training that is as realistic as possible. Attention will be directed to crew coordination throughout all phases of flight. Crews will utilize equipment in the trainer the same as in flight. This shall include communications, personal, and emergency equipment. Correct communications phraseology; techniques; checklist usage and regimentation; and instrument, flight, and AR procedures will be stressed at all times. Realistic aircraft systems and NAVAID failures and malfunctions will be included in a logical and timely manner.
- Conduct a post lesson critique to reinforce the desired learning outcomes.
- Provide comments on the recurring training documentation. The intent of these comments is to provide meaningful feedback to the appropriate levels of supervision (Air Force and contractor) on the student's continuation training. In those rare cases where the student requires more training than the time available, exhibits less than required preparation, or displays an attitude problem, the instructor must provide immediate documentation/feedback to the student's unit through appropriate channels.
- Provide all students with a training critique.

6.5.2.3.2. DET 2, AMCAOS will review all continuation training courses and mission scenarios. Changes should be made as necessary when aircraft systems, operating procedures, or mission and command training requirements are modified or changed.

Table 6.1. ATS Formal School Courses.

Course ID	Title	Length	Notes
KC135ACIQ	Aircraft Commander Initial Qualification	15 weeks, 2 days	
KC135ACIQA	Aircraft Commander Initial Qualification Academics	7 weeks	
KC135AC	Aircraft Commander (formerly PUP)	11 weeks, 3 days	
KC135ACA	Aircraft Commander Academics (formerly PUPA)	3 weeks, 2 days	
KC135ACRQ	Aircraft Commander Requalification	13 weeks	2, 3
KC135ACRQA	Aircraft Commander Requalification Academics	4 weeks, 2 days	2
KC135IAC	Instructor Aircraft Commander Course (PCFIC)	5 weeks	
KC135IACS	Instructor Aircraft Commander Short Course (PCFICS)	2 weeks,	4
KC135PFTC	Pilot Faculty Training Course	4 weeks	
KC135NIQ	Navigator Initial Qualification	13 weeks, 3 days	
KC135NIQA	Navigator Initial Qualification Academics	5 weeks, 2 days	
KC135NRQ	Navigator Requalification	7 weeks, 2 days	3
KC135NRQA	Navigator Requalification Academics	2 weeks	
KC135IN	Instructor Navigator (formerly NCFIC)	3 weeks, 3 days	
KC135INS	Instructor Navigator Short Course (formerly NCFICS)	2 weeks	4
KC135NFTC	Navigator Faculty Training Course	4 weeks	
KC135BIQ	BO Initial Qualification	16 weeks	
KC135BIQA	BO Initial Qualification Academics	7 weeks	
KC135BRQ	BO Requalification	7 weeks	3
KC135BRQA	BO Requalification Academics	4 weeks	
KC135IB	Instructor Boom Operator (formerly BCFIC)	5 weeks	
KC135IBS	Instructor Boom Operator Short Course (BCFICS)	2 weeks	4
KC135BFTC	BO Faculty Training Course	4 weeks	
KC135SSOC	Senior Officer Course	4 days	5
KC135SOC	Senior Officer Course Flying	2 weeks	5

NOTES:

1. Course lengths are approximate and for planning purposes only. Actual course lengths are in AFCAT 36-2223.
2. Aircraft commander requalification includes pilots previously qualified in the both the KC-135 (requals) and US Air Force aircraft (crossflows).
3. These courses have proficiency advancement option that allows for accelerated completion of the flying portion of the training.
4. Instructor upgrade course for highly experienced ARC crewmembers only. See chapter 5 for prerequisites.
5. Pilot and navigator courses for senior officers (O-6 selectees and above) who will fly under instructor supervision.

Table 6.2. C-135 Training Site Courses.

Title	Length	Notes
Transition	3 weeks, 2 days	2
KC-135E Systems Refresher	4 days	5
C-135B/E Systems Refresher	4 days	5
ARIA Systems Refresher	4 days	5
KC-135E Survival (G990/991)	2 days	
KC-135E AC Upgrade Academics	2 weeks	
KC-135E E-Difference	5 days	
Instructor Upgrade Preparation	4-5 days	3
Senior Officer Course	3-4 days	6
Instrument Flying Proficiency (G260)	1 day	4
CRM/MOST (G240, 242, 243)	1 day	4

NOTES:

1. Course lengths are approximate and for planning purposes only. See C-135 syllabus for actual course lengths and detailed description.
2. Suitable for nontanker initial qualification, and KC-135E and non-tanker requalification, as a lead-in to in-unit flying.
3. CFIC preparation only. See syllabus.
4. Optional enhancement to Systems Refresher. May be taken alone.
5. At Unit/MAJCOM discretion, the full Refresher course will satisfy all G22X and G25X requirements.
6. Pilot and navigator courses for senior officers (O-6 selectees and above) who will fly under instructor supervision.

6.5.2.4. OFT Profile Overview:

6.5.2.4.1. Self-Study. The crewmember is responsible for adequate preparation prior to reporting for each training device mission. This includes a review of the mission profiles, pre-course study material, all associated normal, abnormal, and emergency procedures, and applicable aircraft systems. Each pilot must review the applicable portions of the flight publications and provide answers to review exercises located in the OFT profile.

6.5.2.4.2. Prepermission. Instructor will conduct a prepermission briefing before each OFT that covers the following: mission overview, academic session and systems video tapes, aircraft loading, performance data, route of flight, communications, takeoff weather, simulator discrepancies, and OFT emergency egress. The instructor will brief crewmembers on mission objectives, specific training items to be accomplished, scheduled systems and performance training, CRM, and any additional area of emphasis. Briefing should include data and information necessary to complete the mission, special procedures, and aircraft systems. Information presented in the briefing should correlate to the tasks to be reinforced in the ATD. It should include any changes or adjustments to prepositioned data and review of the overall mission and coordination of individual crewmember responsibilities.

6.5.2.4.3. Mission. Fly the sortie in accordance with the applicable profile. It is imperative that the pilot team cope with emergencies while continuing to fly the aircraft. Freeze OFT only when necessary to complete training objectives.

6.5.2.4.4. Postmission. Instructor will critique the crew's performance in all phases of the mission. Complete applicable postmission documentation to include AFTO Form 781 and AFORMS products. Requests or recommendations for additional training will be sent to the unit training manager for action. Additional training times must be coordinated with the unit training manager and ATS contractor. Additional training will be accomplished as soon as possible, schedule

permitting, but not later than the next scheduled simulator session. Individuals will not be considered refresher complete with the refresher simulator requirement until all additional training is completed.

6.5.2.5. Aircrew Systems Refresher Course (G220 series). The contractor will implement and maintain an aircraft systems refresher program (Air Force-approved) to supplement the simulator training course as specified by training event G220. Squadrons are encouraged to expand on this training. Units who do not have access to simulator training will complete the G220 series annually as specified in chapter 4 or this volume.

6.5.3. KC-135 ATS Syllabi:

6.5.3.1. KC-135 ATS syllabi describe the KC-135 training program conducted at formal school and ATS sites. Syllabi supplement applicable Department of Defense, US Air Force, AMC, AETC, and 19 AF directives pertaining to the content and administration of aircrew flying training courses. Syllabi act as blueprints for various KC-135 ATS courses and programs and provide units a description of the training crewmembers receive from the contractor.

6.5.3.2. ATS contractor produces syllabi and is responsible for curriculum development as described in the KC-135 ATS statement of work (SOW) and system specification (SPEC). Contractor will review syllabi annually and update as required.

6.6. Scheduling:

6.6.1. Annual throughput for specific ATS courses is established in the ATS contract. The programmed flying training (PFT) document reflects the planned annual formal school throughput based on Air Force requirements, formal school and ATD capacities, and contract authorizations.

6.6.1.1 Courses conducted at the McClellan C-135 site are not part of the PFT process. Units requiring these courses should forecast their throughput estimates to 940 OSF/FS, by mail or facsimile, by 1 August each year, listing requirements for the ensuing fiscal year. Units who require training, but did not forecast a fiscal year throughput, or will exceed their forecasted throughput, should contact HQ AMC/DOTK to have their additional requirements processed.

6.6.2. Cancellation of ATS formal school course quotas. According to AFCAT 36-2223, HQ AMC/DOTF must be notified 45 days prior to class start date if a quota cancellation or no-fill is pending. All formal school quota cancellations must be made no later than 30 days prior to class start date to enable the quota to be reallocated. If necessary, cancel McClellan C-135 courses with the site scheduler as early as possible to permit reallocation/rescheduling.

6.6.3. Local procedures will be developed at each MOB for scheduling ATS courses. The unit training manager is responsible for procedures that minimize schedule changes and maximize training in the available time. The ATS contractor should be kept apprised of scheduling changes and special training requirements.

6.7. Administration. Submit unit for ATS courseware or syllabi to Det 2 AMCAOS/DOU for continuation training courses or HQ AETC/DOU for formal school courses.

6.8. Courseware Changes. Submit changes via a change request (currently a quality assurance change proposal (QACP)) to Det 2 AMCAOS for recurring courseware and HQ AETC/DOU for formal school courseware.

Chapter 7

MAJCOM SPECIFIC GUIDANCE

General. This chapter contains MAJCOM specific mission and series. MAJCOMs, including ANG and AFRC, may publish unique training policy guidelines that supplement the guidance found in the preceding chapters, commencing with paragraph 7.1. The title of each paragraph will indicate the MAJCOM concerned (e.g. "AMC Specific Guidance"). The MAJCOM policies may not be less restrictive than those in this instruction. After publication, MAJCOMs and ARC units send two copies of their chapter 7 to HQ AMC/DOT.

GARY A. VOELLGER, Major General, USAF
Director of Operations, AMC

CHARLES COOLIDGE, Major General, USAF
Director of Operations, AETC

DONALD W. SHEPPARD, Major General, USAF
Director, ANG

JOHN M. MCBROOM, Major General, USAF
Director of Operations, PACAF

MICHAEL C. SHORT, Major General, USAF
Director of Operations, USAFE

TRAINING EVENT DESCRIPTIONS

A1.1. KC-135 Academic ("A") Training Events:

A001 Initial Qualification Academic Course. Credit may not be awarded until all course requirements are satisfied. This course will be provided in accordance with the CCTS syllabus.

A002 Aircraft Commander Upgrade (KC-135ACA) Academic Course. Accomplish in accordance with CCTS syllabus. Training will include A017. For KC-135E, accomplish in accordance with C-135B/E syllabus.

A003 Senior Staff Orientation Course. Two day orientation course for senior officers. Does not meet the requirements for A004, Senior Staff Course, and does not result in a qualification in the KC-135.

A004 Senior Staff Qualification Course. Senior officer basic qualification academics and ATDs.

A005 PACER CRAG Difference Training.

A010 Instructor Academic Training. Accomplish in accordance with CCTS syllabus.

A017 Regulation/Directive Knowledge/Use. For AC upgrades, a minimum of AFIs 11-206, 11-401 and 11-408, AFMAN 11-217; MCI 11-235, and AMCI 11-301. For IBO upgrade, a minimum of AFI 11-408, MCI 10-202, *Aircrew Training Program* (volumes 1 and 6), and MCI 11-235, *C/KC-135 Operations* (volumes 1-8, 12, 17, 21, 25, and (forthcoming) 26).

A024 Difference Course (KC-135E).

A026 Difference Course (KC-135E to KC-135R).

A028 Difference Course (KC-135R).

A029 Difference Course. Designed to qualify crewmembers in a different M/S aircraft. Administer when a specific course is not designated.

A032 Difference Course (KC-135T). Pilots must be qualified in KC-135R prior to completing this course.

A034 Requalification Course. Used as abbreviated academic course during requalification for pilots, navigators, and BOs.

A035 R to E Difference Course.

A036 PACER CRAG Initial Qualification Course.

A037 SIOP Performance Training. Thorough review of SIOP performance data computations.

A044 Instructor (CFIC) Preattendance Workbook. Must be completed prior to beginning instructor academic training (A010).

A052 Receiver AR Indoctrination. Familiarization training consisting of AR missions in AR part task trainer.

A053 Receiver AR (Initial).

A060 Flight Examiner Course.

A1.2. Formation ("F") Training Events:

F010 Formation Departure and Join-Up. Includes buddy departure. Procedures specified in MCI 11-235, volume 25, and Technical Order (TO) 1-1C-3. For initial qualification and PUP training, pilots must

accomplish once as lead and once in trail. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit.

F020 Formation. Follow procedures from MCM 3-1 and MCI 11-235, volume 25. At least 30 minutes of formation should be planned and accomplished. Each crew commander must brief that portion of the mission their crew will lead. Accomplish using EMCON 2 procedures (**not applicable for AETC**). Accomplish P260 and P270 during each formation flight. Essential radio communications required for safety of flight or failure to accomplish a P260 or P270 does not preclude crediting the event. For continuation training, credit may be taken for all formation positions. Copilots must demonstrate proficiency in copilot duties to receive credit. Log only one F020 per sortie.

F030 Large Formation Departure and Join-Up. Three or more aircraft in cell formation (either KC-135s or a mix with KC-10s). Dual log with F010.

F040 Large Formation. In addition to F020 requirements, accomplish 30 minutes of formation with a flight of three or more aircraft (either KC-135s or a mix with KC-10s). Dual log with F020.

F050 Large Formation Anchor AR. Accomplish large formation with 3 or more aircraft per formation (either KC-135s or a mix with KC-10s) anchor operations. AR is not required for this training event, but is recommended. Procedures and techniques for operating and maneuvering large formations in confined airspace must be stressed. Schedule 30 minutes in an anchor area or other suitable airspace. Dual log with F020, F040, and F050 as appropriate.

F060 AR Formation. 15 minutes of AR formation required (tanker or receiver).

A1.3. Ground Training ("G") Events:

G002 Aircraft Marshaling Training and Examination. Review of AFI 11-218, *Aircraft Operation and Movement on the Ground*, followed by a 20-question test.

G003 Flightline Security and Drivers Examination. Training, examination, and certification to drive vehicles on the flightline according to local procedures.

G010 Chemical-Biological Warfare Defense (CWD) Training. Academic and hands-on training on the ground crew protective equipment components (AFI 32-4001).

G020 Aircraft Ground Egress Training. See AMCI 11-301. For USAFE, see reference USAFE 11-301 for requirements. (AFPD 11-3, *Life Support*, AFI 11-301, *Life Support Program*, AMCI 11-301, and *Aircrew Life Support (ALS) Program*).

G025 Aircraft Field Trip. Must be accomplished prior to initial flight in each different series of KC-135. May be accomplished in conjunction with G020, Aircraft Ground Egress Training.

G030 SIOP Command and Control Procedures. SIOP message decoding and operational reporting procedures training. (EAP-STRAT, volume 5)

G031 Initial SIOP Command and Control Procedures. Overview of SIOP command and control procedures as outlined by EAP-STRAT, volume 5, and will include a review of operational reports in annex A to EAP-STRAT, volume 6.

G033 Unit Alert Procedures. Review of local ALPHA and BRAVO alert procedures as published in unit directives concerning MOB and satellite alert operations.

G034 Minimum Interval Take-Off (MITO) Training. Review of MITO procedures and techniques. Academic training in aerodynamic effects, differences between 30 second formation takeoff and 12-15 second MITO, and local area procedures.

G035 PLZT Goggle Training. Event should be accomplished under supervision of a life support technician. Crews should be familiar with all contents of the flash blindness kits. After modification of aircrew helmet, the crewmember will demonstrate proper handling, donning, testing and storage of EEU-series PLZT goggles to include location and installation of power cables.

G036 Flashblindness and Thermal Protection. This event includes location and actual installation of thermal curtains and donning of the eye patch or gold goggles, if available.

G040 SIOP Study. Review of SIOP mission documents in accordance with AMCI 10-450, Volume 2, (S) *KC-135 SIOP Planning (U)*, and MCI 11-235, volume 24.

G041 Unit Mission Briefing. Briefing by unit operations plans on sortie requirements and operations procedures applicable to the unit's mission

G060 Tactics. Tactics doctrine and training necessary to complete SIOP/conventional missions. Includes Safe Passage procedures training. (MCI 11-235, volume 22; MCM 3-1, volume 22).

G070 Aircrew Intelligence. Enhances crewmembers knowledge of threats to unit assets. (AFI 14-103, *Threat Recognition Training Program*, and AMCI 14-101, *Unit Intelligence Management*).

G080 Communications Procedures. AFSIR, authentication and IFF SIF codes and procedures, electronic warfare, L-Band SATCOM, HAVE QUICK, SECURE VOICE, and communication security (COMSEC) user requirements. (AFI 33-211, *Communications Security [COMSEC] User Requirements*, AMCI 33-101, *Instruction For Combat Crew Communications*, and AMCH 33-1, (S) *AMC Aircrew Communications Handbook (U)*).

G082 KY58 Radio Academics.

G090 Antihijacking. Training on US Air Force policy and guidance on preventing and resisting aircraft piracy. (AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*)

G100 Laws of Armed Conflict. Principles of Code of Conduct regarding combat, resistance, and prisoner-of-war situations. (AFPD 51-4, *Compliance with the Laws of Armed Conflict*, forthcoming AFPAM 51-709, *International Law—The Conduct of Armed Air Operations*)

G110 Protection From Terrorism. Aircrew training for hostage or terrorist situations. (AFI 31-210, *The Air Force Antiterrorism [AT] Program*)

G120 ISOPREP. 180 currency for review of isolated personnel report (ISOPREP) card. (AFDD 34, *Combat Search and Rescue Operations*)

G130 Instrument Refresher Course. Seminar for pilots and navigators reviewing instrument procedures. Includes written examination. (AFMAN 11-210, volume 2, *Pilot's Written Instrument Examination*, and AFI 11-408, AMC Supplement 1)

G150 TERPS. Course for BOs providing instruction in en route and terminal FLIP publications to safely monitor instrument departures and approaches.

G160 Overwater Navigation Procedures. Procedures and techniques for category I/overwater navigation.

G161 Polar Navigation Procedures. Procedures and techniques of polar navigation. Includes ground mission accomplished on CTD. Dual-log with G171.

G170 Celestial Training Device (CTD). Encompasses any celestial navigation procedures training accomplished in the CTD with a minimum duration of 1 hour.

- G171 Polar Grid CTD Profile.**
- G172 Twilight CTD Profile.**
- G173 Southern Latitude CTD Profile.**
- G174 Unit Option CTD Profile.** CTD profile determined by unit training managers.

G175 Table Top Navigation and Rendezvous Trainer.

G182 Hazardous Cargo Training. Required annually for ACs and BOs (For ARC, all pilots and BOs). (AFJI 11-204)

G183 Floor Loading. Non-palletized cargo loading in KC-135s without roller floors.

G184 Palletized Cargo Loading. Training in palletized cargo loading and channel operations.

G190 Aircraft Servicing. Familiarizes crewmembers with procedures necessary to service aircraft when qualified maintenance support is not available. Course does not qualify crews to perform maintenance tasks.

G210 Alert Start Procedures. Instruction on procedures required to quick start aircraft that has been cocked to simulate alert status, i.e. windshield cover, pitot covers, engine plugs, etc., installed, if appropriate. Includes instruction on APU start checklists and operation. Must be completed prior to accomplishing initial P290, Alert Start.

G215 PACER CRAG Continuation Training. CBT designed for Pacer Crag continuation training.

NOTE: G222-G227 are required annual refresher training CBTs in aircraft systems knowledge for all pilots, whether or not a simulator is available.

- G222 Hydraulic Systems (SYS-1).**
- G223 Flight Controls (SYS-2).**
- G224 Fuel System (SYS-3).**
- G225 Electrical System (SYS-4).**
- G226 Environmental Systems (SYS-5).**

G227 Engines, Propulsion, and APU (SYS-6). Navigators and BOs need only accomplish APU portion of SYS-6.

G228 Electrics and Fuel Systems for Boom Operators.

G229 AR Systems for Boom Operators.

G230 CRM Refresher. Annual CRM academic refresher training. Accomplished in conjunction with G242 and G243, CRM simulators. For ARC, can be accomplished in conjunction with G257.

G231 Initial CRM. Aircraft and crew-specific CRM training conducted according to AFI 36-2243, and AMC Supplement 1. If initial CRM is not accomplished at the formal school, it must be accomplished within 1 year of reporting to home station.

G232 Instructor and Evaluator CRM. One-time requirement taught during instructor upgrade.

G234 FSA/CAS. Instruction on the operation of the FSA/CAS in the E model. Available on CBT.

G242 CRM Simulator 1. Part 1 of CRM simulator profile.

G243 CRM Simulator 2. Part 2 of CRM simulator profile.

G244 Crew Coordination. Course designed to improve nonpilot crewmembers knowledge of standard configuration of the pilots' instruments and flight controls during takeoff, approach, and landing.

G252 Electrics and Fuels Simulator. Completion of AC Upgrade sims KPTD3 and KPTD5 or CFIC sim #3 are creditable for G252.

G253 Engines and Pneumatics Simulator. Completion of AC Upgrade sim KPTD4 or CFIC sim #2 are creditable for G253.

G254 Flight Controls and Instrument Training. Completion of AC Upgrade sims KPTD2 and KPTD6 are creditable for G254.

G255 Boom Operator Part Task Trainer (BOPTT). Training emphasizing boom operator AR training.

G257 American Airlines Simulator (KC-135E).

G259 Requalification Simulator.

G260 Instrument Simulator Sortie. Simulator training focused on instrument procedures.

G270 Tactics Simulator. Tactical mission scenario including threat brief, air tasking order (ATO) and special instructions (SPINS), mission planning, threat awareness and avoidance, communication procedures (authentication, AFSIR, etc.) and tactical maneuvers. Training should include a full crew complement (if feasible).

G280 Small Arms Training. Academics and firing range exercise. Includes use of force, live fire, or firearms simulator training. (AFI 31-207, AFI 36-2226)

G290 Airfield Qualification Program. Videotape program used to familiarize crewmembers with destination airfield environment prior to deployment. Event logged after viewing appropriate AQP videotape of destination airports.

G300 Hydroplaning. Instruction in actions to take on wet runways during hydroplaning situations.

G310 Weather Avoidance Radar. Instruction on procedures and techniques for tuning the radar for weather detection and avoidance.

G320 INS/DNS. Instruction on INS/DNS operations.

G801 Initial SOAR Training. In-depth discussion of MCI 11-235, volume 27, special operations AR procedures.

G802 Recurring SOAR Ground Training. Recurring special operations training to include communications, AR, and operations security procedures.

G803 NVG Training and Qualification. Instruction and qualification on the operation, care, and use of night vision goggles.

G804 Ground Communications Training. Instruction on all phases of SECURE VOICE communications used in SOAR. Includes keying, over the air rekeying, and operation of SECURE VOICE equipment.

G805 SOAR Missed Rendezvous Procedures. Instruction on procedures in MCI 11-235, volume 27, for emergency or missed rendezvous.

G990 ARC Refresher Sim A. First of two required sims for ARC pilots. Log when complete in lieu of G252, G253, or G254.

G991 ARC Refresher Sim B. Second of two required sims for ARC pilots. Log when second sim is complete in lieu of G252, G253, or G254.

A1.4. Life Support ("LS") Training Events:

LS01 Life Support Equipment (LSE). Provides training on the use of available life support equipment and the principles, procedures, and techniques needed to permit survival in varying climatic conditions and environmental regions. This class is conducted as part of the flight line syllabus at CCTS for initial qualification students.

LS02 Aircrew Chemical Defense Training (ACDT). This course includes in-depth instruction in donning the aircrew defense ensemble, post bailout procedures, and decontamination and doffing. Donning and doffing equipment during exercises fulfills training requirement. Units may combine this training with G010 (Chemical-Biological Warfare Training), provided both aircrew and ground ensembles are fully covered.(AFPD 11-3, AFI 11-301, AMCI 11-301).

LS03 Combat Survival Training (CST): Includes in-depth instruction in parachuting, physiological and psychological factors, personal protection, land navigation, combat recovery and signaling, survival medical training, Code of Conduct, and SAR communications. See AMCI 11-301 for course description. Course satisfies self-aid and buddy-care requirements of AFI 36-2238, *Self-Aid and Buddy Care Training* (AFPD 11-3, AFI 11-301, AMCI 11-301).

LS04 Water Survival Training. Training for each crewmember with all weapons system specific flotation devices and components available during overwater emergency (AFPD 11-3, AFI 11-301, AMCI 11-301). See AMCI 11-301 for course description.

A1.5. Mission-Specific ("M") Training Events:

M001 Sortie. Log one M001 for each AFTO 781 sortie flown.

M010 Proficiency Sortie. The following requirements are listed by crew position:

- Pilots—Must be accomplished with an IP (formal school instructors are exempt from the IP requirement). IPs should accomplish their M010 requirements with another IP on board the aircraft. Once the exercise commences, it should not be disrupted for any other type of training. A minimum of 1.5 hours (*1 hour for ARC*) should be scheduled for this event. As a minimum, a pilot proficiency sortie will consist of the following:
 - Review of boldface emergency procedures
 - Three instrument approaches
 - Missed approach
 - VFR traffic pattern (weather permitting)

In addition, the following should be accomplished when available and applicable:

- Holding pattern or procedure turn (to include entry)
- Circling approach
- Simulated engine-out landing (if applicable to aircraft type and weather permitting, not applicable to copilots)
- Simulated engine-out go-around or missed approach (if applicable to aircraft type and weather permitting, not applicable to copilots)
- Partial flap landing (if applicable)
- Engine Failure Take-Off Continued (ARC E/D model qualified pilots only)

If circumstances prevent completion on one sortie, credit may be taken after a second IP-supervised sortie, provided the combined activity fulfills the intent of this paragraph. Instructors should tailor each M010 to

the individual pilot's needs. Particular emphasis should be placed on simulated systems malfunctions, simulated-engine out operations and instrument procedures.

- Communication system operators (CSO)—May credit a proficiency sortie when they complete predeparture activities applicable to the mission being flown and accomplish all normal tasks through post-mission debriefing.
- Boom operators—Must accomplish preflight through engine shutdown checklist items and an AR, channel sortie, or cargo load operations. Instructor and examiner boom operators may credit a proficiency sortie (M010) while instructing or evaluating.
- Inflight passenger service specialists—Must accomplish duties associated with their crew position.

M020 Unit Specific Training Sortie. Unit defined sortie to accomplish mission specific training events. The following is a suggested listing of events that can be used on a M020:

- Any individual training event (approaches, landings, ARs)
- Exercise training (RED FLAG, MAPLE FLAG)
- US Navy or Marine Corps drogue training
- Practice mobility training
- Night formations
- Large formations
- Night receivers and refueling
- Special mission tasking
- Special operations tasking
- Tactical navigation training
- Composite exercises

M025 Supplemental Training Sortie. Training sortie that provides transportation of personnel or cargo aboard -135 aircraft and results in the expenditure of additional flying hours through modification of a scheduled training sortie. All supplemental training sorties must be coordinated and approved by NAF Commander.

M030 Overseas Sortie. Sortie that includes take-off or landing outside the 48 conterminous states of the United States. Primary crew and crewmembers performing instructor or evaluator duty may log accomplishment of M030. This event does not apply to units that are permanently based overseas. Two overseas sorties may be credited if total mission time exceeds 30 hours of flight time.

M200 Precrew Training Sortie (CCTS Only). Training sortie designated to permit student to observe duties and responsibilities. These sorties should be accomplished before starting regular aircrew flying training phase.

M250 Silent Launch Procedures. Procedures required to generate and launch aircraft in a radio silent environment. Units should develop local procedures for single ship and formation departures. For training purposes, silent launch procedures will terminate with the initial radio call to departure control when airborne.

A1.6. Navigation ("N") Events:

N005 Mag Course Departure (CFIC/Pre-CFIC Only). Departure directed by the navigator using the radar and mag course procedures. (Note: For Pre-CFIC training, the instructor navigator will brief procedures on the ground to the instructor navigator candidate and demonstrate proper radar configuration during departure. The instructor navigator and navigator will monitor the pilots departure but not direct it.)

N010 Tanker Rendezvous. Any rendezvous accomplished using the procedures in the AR TO. Includes point parallel, en route, GCI/AWACs directed, and alternate rendezvous methods. AETC instructors and evaluators may take credit for any rendezvous instructed or evaluated during IQT and RQT training. Pilots may dual log this event with the navigator.

N011 Rendezvous—Emission Option 1 (Unrestricted Communications and Emissions). Procedures primarily used for CCTS training.

N012 Rendezvous—Emission Option 2 (Limited Communications). Normal procedure for rendezvous and AR. See AR TO for authorized communications and emissions.

N013 Rendezvous—Emission Option 3 (Radio Silent). See AR TO for complete description and requirements. The use of other emitters is authorized unless prohibited by supported operations plans.

N014 Rendezvous—Emission Option 4 (No Emissions). See AR TO for complete description and requirements. No emitter will be used unless specifically authorized by the air tasking order (ATO), rules of engagement, operations plans, safe passage procedures, or other mission directives. This includes radios, doppler, radio navigation transmitters, radar, radio altimeters, IFF, exterior lighting, etc. This option will not be practiced during peacetime operations unless specifically tasked by NAF or higher headquarters due to the FAA identification requirement.

N015 Tanker Alternate Rendezvous. Any tanker rendezvous not utilizing the INS/DNS and TACAN as the primary means. Dual-log with N010.

N016 Tanker Rendezvous Overrun Procedures

N020 Tanker En Route Rendezvous. Dual-log with N010. Pilots may dual log this event with the navigator.

N030 Tanker Point Parallel Rendezvous. Dual-log with N010. Pilots may dual log this event with the navigator.

N040 Tanker Anchor Rendezvous and AR. Includes any rendezvous and AR in an anchor area. Can be tanker, receiver, or GCI and AWACs directed. Dual-log with N010 and R060. Pilots may dual log this event with the navigator.

N050 Navigation Leg. Any navigation leg of at least 1 hour duration. AETC instructors and evaluators may take credit for any navigation leg instructed or evaluated during IQT or RQT.

N055 Category I/Overwater Navigation Leg. See MCI 11-235, Volume 11, for description. Dual-log with N050.

N060 Mission Navigation Leg. See MCI 11-235, Volume 11, for description. Dual-log with N050.

N065 Tactical Navigation Leg. See MCI 11-235, Volume 11, for description. Dual-log with N050.

N070 Degraded Systems Navigation Leg. See MCI 11-235, Volume 11, for description. Dual-log with N050.

N080 Grid Entry and Exit Exercise. Use grid entry and exit checklist to configure compass systems and DNS (if applicable) for grid navigation. May be completed in conjunction with any navigation leg or during general navigation.

N090 Control Time/Position Exercise. Establish ETA to a control point at least 30 minutes in duration and meet control time +/- 30 seconds. May be flown in conjunction with any navigation leg or during general navigation.

N100 INS Airborne Alignment. Simulates INS operation under SIOP launch conditions. INS should be left in STBY until after takeoff and air aligned using flight manual procedures. However, for continuation training, air alignment may be initiated any time inflight.

N110 Communication Procedures. Crewmembers will copy at least one emergency action message using both HF and UHF radios (only the first six elements of a UHF message are necessary). Crewmembers will

contact a global command and control station using HF radio. Crewmembers will also accomplish launch and authentication check. A log will be maintained of all communications.

N120 Airborne Radar-Directed Approach. Approach directed by the navigator using airborne radar as the primary means.

N130 Receiver Rendezvous. Accomplish in accordance with the AR TO. Navigators must direct their aircraft to 1 NM in trail to receive credit.

N131 Receiver En Route Rendezvous. Dual-log with N130.

N132 Receiver Point Parallel Rendezvous. Dual-log with N130.

N135 Receiver Alternate Rendezvous. Dual-log with N130.

N136 Receiver Rendezvous Overrun Procedures.

N140 Celestial Observation. Minimum of 3 celestial observations per event. May be accomplished in conjunction with any navigation leg or during general navigation. One celestial observation may be logged per sortie.

N150 Celestial Position. Locate, shoot and plot celestial position in-flight. At least 3 lines of position and a heading check are required. May be accomplished in conjunction with any navigation leg or during general navigation. One celestial position may be logged per sortie. Sextant observations may be accomplished by the navigator or boom operator.

N160 General Navigation. Comply with general navigation procedures in MCI 11-235, Volume 11. Includes directing the aircraft, maintaining inflight log and chart information, fixing and maintaining track, establishing reliable ETAs, and meeting control times. For navigator IQT, sufficient information must be recorded on inflight log to accurately reconstruct the mission, including wind.

N165 Fixing. Obtain and plot precision fixes (VOR, TACAN, or radar). Individual must understand navigation corridor scoring procedures and responsibilities.

N170 INS/DNS TACAN Aided Operation.

N175 INS/DNS Radar Present Position Update.

N176 INS/DNS Manual Present Position Update.

N180 Target Timing Wind.

A1.7. Crew and Individual Proficiency ("P") Events:

P006 Airwork. Block of time scheduled and devoted to learning and maintaining basic flying skills. Objective of this event is to demonstrate or reinforce understanding of aircraft flight characteristics. Recommend accomplishment in an airwork area with reserved altitude blocks.

NOTE: The following is a list of events which may be accomplished:

1. Steep Turns. Target bank angle should not exceed 45 degrees of bank. Target airspeed is 250 KIAS.
2. Lateral Control Demonstration.
3. Trim Demonstration.
4. Approved inflight tactics events.
5. Additional items such as vertical "S."

P007 Approach to Initial Buffet and Recovery.

P011 Takeoff—Night

P012 Takeoff—Gyro Mode. Takeoff using max mode climb procedures without assistance of RGA command bars.

P015 Instrument Departure. That portion of flight after establishing climb configuration and airspeed through SID routing or first en route point on the radar departure.

P018 Copilot Takeoff Climb Duties. Perform copilot takeoff duties, to include setting takeoff power and monitoring aircraft performance and acceleration through cleanup altitude. May be accomplished in ATD.

P020 Takeoff. Initial takeoff or takeoff following touch and go landing.

P026 Takeoff and Climb Procedures.

P027 EWO Departure. 330 KIAS climb airspeed will be established after flap retraction and maintained until level off or climb Mach is attained. Pilots may receive credit when occupying either pilot or copilot position.

P030 Max Mode T/O, 30 Flap.

P035 PMC Off Takeoff. Takeoff with simulated outboard engine PMC inoperative. PMC switch for the engine will be set to off and TO PMC-off procedures accomplished. Accomplish only in the OFT.

P040 Simulated Engine Failure, Takeoff Continued. Authorized for IPs, ACs, and experienced copilots supervised by an IP. Requires direct IP supervision; dual log with P020, P190, and P192.

P045 Simulated Engine Failure on the Runway (CFIC Only).

P050 Tactical VFR Departure.

P060 Tactical VFR Arrival.

P070 Instrument Approach.

P071 Holding.

P072 Penetration (Published).

P073 En Route Descent.

P080 Instrument Approach (Auto or Coupled). Approach flown with the autopilot coupled to the ILS.

P090 Instrument Approach (Manual).

P100 Precision Approach.

P101 ILS Approach.

P102 ILS (Gyro Mode).

P103 PAR Approach.

P110 Non-Precision Approach.

P111 VOR/TACAN Procedures. Includes fix-to-fix navigation, course interception, and general radio aid navigation. This event does not include an instrument approach.

P112 TACAN, VOR, and Localizer Approach.

P113 ASR Approach.

P114 RMI Only Approach (ADF and VOR).

P115 Backcourse LOC.

P130 Circling. Dual-log with type approach flown.

P140 Visual Traffic Pattern. Maneuver flown to position aircraft for landing from the visual traffic pattern.

P160 Missed Approach

P170 Approach and Go-Around, Simulated Engine-Out. Accomplish under IP supervision.

P171 Approach and Go-Around, Simulated Engine-Out, Power Rudder Off. Accomplish under IP supervision.

P172 Approach and Go-Around, Simulated Engine-Out, FCAS Off. (Simulated loss of an outboard engine with loss of SYD/EFAS.) Accomplish with rudder power on to low approach only.

P180 Approach and Landing, Simulated Engine-Out. Accomplish under IP supervision.

P190 Landing.

P191 Landing, Full Stop, Reverse Thrust. Landing rollout will be made using reverse thrust on all engines. For qualification training, KC-135E pilots should accomplish at least one event at a minimum gross weight of 175,000 pounds. Gross weight requirements do not apply to continuation training events. Loss of currency will not cause loss of MR status.

P192 Night Landing. Dual log with P190.

P193 Landing, 50-Degree Flaps. Dual log with P190.

P194 Landing, 30-Degree Flaps. Landing with 30-degree flap setting under restrictions in MCI 11-235, volume 4.

P195 Landing, Simulated Engine-Out, 4 Engine Takeoff.

P196 Landing, Full-Stop.

P200 Touch-and-Go Landing. Currency requirement for AC. Loss of currency does not result in a loss of mission ready status. Dual log with P020, P190, and P192 as applicable.

P211 Simulated Two Engine Landing (CFIC Only).

P212 No Airspeed/No AOA Approach (CFIC Only).

P215 Landing Attitude Demonstration. Dual-log with P190.

P216 Copilot Braking Exercise (CCTS Only). Exercise teaching braking from the right seat. Event may be accomplished as a taxi exercise on the runway or on a full-stop landing. Maximum gross weight is 150,000 pounds and a dry runway is required.

P240 Landing Gear Alternate Extension.

P250 Main Flap Manual Operation. May be accomplished on the ground (if applicable).

P260 HAVE QUICK Radio Procedures. Training consists of properly configuring the radio for HAVE QUICK operation and making at least one transmission and reception using HAVE QUICK mode of operation with any source. When practical, rendezvous and refueling should be accomplished utilizing the HAVE QUICK mode of operation. The TOD should be updated from a ground station master clock when possible.

P270 SECURE RADIO Operation. Training consists of properly loading SECURE VOICE code and making at least one transmission and reception using SECURE VOICE with like equipped aircraft.

P272 KY 58 Radio Operation. Trainee must demonstrate keying KIK-13, loading KY-58, completing secure radio transmission with another aircraft, and proper zeroizing of KY-58 and KIK-13.

P280 Aircrew Chemical Defense Qualification Training (ACDTQT). An exercise emphasizing hands-on training, dressed out in partial chemical defense (CD) ensemble. Do not accomplish in conjunction with a formation take-off or a night formation departure. The purpose of the exercise is to enable crewmembers to become aware of their limitations while wearing the equipment. Complications of heat exhaustion, fatigue, hyperventilation, limited dexterity, and hampered communication can all be experienced during the exercise. Observers must closely monitor crewmember actions during the exercise. If a crewmember experiences

difficulties such as excessive thermal stress, hyperventilation, headaches, etc., and either the observer or crewmember believes it is unsafe to continue, the equipment will be immediately removed.

- The following aircrew CD items will be used:
 - Flying helmet (if applicable)
 - MBU-19/P hood and mask assembly
 - Filter pack with filters and CQU-7/P blower assembly with filter canisters and batteries
 - MXU-835 intercom assembly
 - Filter pack suspension straps
 - Glove set (cotton, butyl, Nomex®)
- ACDTQT should be accomplished in a simulator with visual displays, provided a simulator exists or is available. If accomplished in a simulator, ATS instructors will observe the exercise, no other supervision is required, and no restrictions apply on who and how many crewmembers may wear the gear.
- If performed in the aircraft, only one pilot will be dressed out at any time. Navigators and boom operators will not dress out simultaneously.
- The aircraft commander will be supervised by an instructor pilot occupying the copilot seat. Copilot will be supervised by an instructor pilot or experienced aircraft commander (determined by the squadron commander) in the pilot seat. A safety observer crewmember will occupy the jump seat. Pilots will don the gear and accomplish at least one take-off, approach, and landing, and complete all crew position checklists associated with approach and landing.
- Navigators will be supervised by another navigator (boom operator may supervise KC-135 navigators) and wear the gear for a minimum of 30 minutes while performing navigator duties.
- Boom operators, supervised by crewmembers of like specialty or a navigator, will wear the gear during take-off, approach, and landing.
- Prior to being scheduled for this event, each aircrew member must have completed LS02.

P290 Alert Start. The initial accomplishment must be in an aircraft that has been cocked to simulate alert status, i.e., windshield cover, pitot covers, engine plugs, engine cartridges, etc., installed, if appropriate. Crew must respond via normal alert notification (which requires engine start) or from a wing tip position and accomplish alert start and taxi checklist items while in the chocks. Pilots and copilots must receive a thorough briefing by a unit instructor pilot on APU or cartridge start operation prior to performing an alert start. Subsequent requirements may be accomplished in an ATD or the aircraft.

P300 Cargo Loading. Accomplishment of either floor loading or palletized cargo loading during a deployment, operational or training mission, or exercise. A locally accomplished static load may be used for P300 credit. BOs must complete G182, G183, or G184 annually to be authorized to complete this event unsupervised. The actual accomplishment with an instructor is creditable toward G183 or G184, as applicable.

P310 Instructor and Evaluator Duties. Creditable when instruction or AFI 11-408 evaluation is performed inflight or in the training device. Instructors may receive credit while instructing unlike specialties during initial and mission qualification and instructor upgrade.

P311 Flight With An Instructor.

P312 Instructor Techniques (CFIC Only).

P320 Supervision of Copilot Takeoffs, Landings, Touch and Go Landings, and Receiver Air Refueling. Designed to certify ACs by the SQ/CC to perform unsupervised touch and go landings and supervise unit copilot's takeoffs, touch and go landings, and receiver air refueling.

- P335 Prep for Contact**
- P340 Briefing and Control of Passengers.**
- P345 Inflight Adjustment and Security of Load.**
- P355 Trouble Shooting AR Equipment Malfunctions.**
- P360 Mission Planning and Briefing.**
- P361 Preflight.**
- P362 Pretakeoff.**
- P363 Climb.**
- P364 Cruise.**
- P365 Autopilot Off Cruise.**
- P366 Checklist Procedures and Use.**
- P367 Crew Coordination.**
- P368 Postflight.**

P369 Aircraft Equipment Operation. Demonstrated proficiency in operating the following equipment:

- Ground start and taxi procedures (P, CP)
- Pneumatic system (P, CP)
- Radar and navigation systems (P, CP, N)
- Hydraulic system (P, CP)
- APU (P, CP, N, BO)
- AR system (BO)
- Fuel panel mgt (P, CP)
- Comm radios (P, CP, N)
- Sextant (BO)

P380 Spoiler and Lateral Control Demonstration. Demonstration of roll rates and aileron forces required for different spoiler settings and the reduced lateral control effectiveness after spoiler or hydraulic malfunction. Must be accomplished above 10,000 feet AGL.

P382 Trim Demonstration.

P383 Simulated Jammed Stabilizer Demonstration.

A1.8. Examinations, Qualifications and Certifications ("Q") Events:

Q001 Open-Book Qualification Examination. Administered and graded according to AFI 11-408, as supplemented. Must be accomplished as part of all qualification training.

Q002 Closed-Book Qualification Examination. Administered and graded according to AFI 11-408, as supplemented. Must be accomplished as part of all qualification training.

Q005 ATD Evaluation. Administered in ATD (OFT, CTD, BOPPT), according to AFI 11-408 as supplemented. Completion of AC Upgrade simulator KPTD8 or CFIC simulator #4 are creditable toward Q005.

Q010 SIOP Certification. Preparation for SIOP certification and SIOP certification. Certification by wing or operation group commander or designated representative that the individual can perform the SIOP mission.

Q011 Formation Lead Certification Program. Designed to certify ACs as formation lead.

Q014 Difference Certification. Documents all training required to qualify individuals in a different mission-series aircraft or different tactic requiring certification is complete. Q014 is not required when AA01 difference evaluation is accomplished.

Q015 Special Missions and Operations Certification. Certifies completion of all training required to air refuel special operations aircraft. Commanders will determine the requirement for this event and missions to be certified using this event.

Q016 Conventional/Mobility Certification. Wing or group commander (or designated representative) certification that a crewmember is prepared to accomplish the unit's conventional or mobility mission as specified in the unit's DOC statement. Commanders will determine the requirement for this event.

Q017 LAAR Certification

Q021-Q032—AR Qualifications. BOs—Q021, 022, 023, 026, 030, 031, and 032. ACs—Q028. BOs initially qualified in accordance with AFI 11-408 are qualified to refuel any receiver not listed in the following categories:

Q021 BRAVO—Probe Equipped Receivers. Program # 1918 may be used if probe receivers are not available. CCTS may be completed in BOPTT. In-unit qualification must complete Q22 and Q23 before starting Q21.

Q022 CHARLIE—Receptacle Equipped Fighters, Day. Complete program #1919 prior to flight.

Q023 CHARLIE—Receptacle Equipped Fighters, Night. Complete program #1919 prior to flight.

Q026 FOXTROT—C-5. May be accomplished in the BOPTT. Qualification in category FOXTROT qualifies boom operators in category JULIET (If a day B-2 AR is not previously accomplished, initial B-2 night refueling must be supervised by a JULIET qualified instructor).

Q028 GOLF—KC-10, C-5, or C-17. Accomplishment with one receiver aircraft qualifies pilot for all three.

Q030 INDIA—F-117 Night. Must be category CHARLIE qualified with a solid fighter AR back-ground. When possible, a day sortie should precede night qualification. Two night contacts are required.

Q031 JULIET—B-2. Must be category FOXTROT qualified. When possible, a day sortie should precede initial night B-2 AR. If initial B-2 contact is at night it must be supervised by a Q031 qualified instructor.

Q032 KILO—C-17. Prior category FOXTROT qualification is desired but not required. Qualification in category KILO qualifies BOs in both category FOXTROT and JULIET (If a day B-2 AR is not previously accomplished, initial B-2 night refueling must be supervised by a JULIET qualified instructor).

NOTES:

1. All category qualification training requires supervision by an instructor qualified in that category.
2. Prior to attempting initial contact, the trainee must monitor radio communication procedures and observe an instructor demonstrated contact.
3. The squadron will review CCTS records to determine category qualifications obtained at CCTS and ensure entry in AFORMS System.

Q050 Aircraft Commander Touch and Go Landing Certification. Designed to certify ACs by the SQ/CC to allow the ACs to accomplish unsupervised touch and go landings.

Q060 EMCON 3 Certification. Requires SQ/CC certification for crewmembers to accomplish EMCON 3 procedures during formation, rendezvous, and AR on both operational and training sorties.

Q070 EMCON 4 Certification. Requires SQ/CC certification for crewmembers to accomplish EMCON 4 procedures during formation, rendezvous, and AR on both operational and training sorties.

Q081 Avionics Relocation Program (ARP) Qualification. Qualification for pilots and BOs to fly the KC-135 in the ARP configuration without a qualified navigator.

Q091 PACER CRAG Qualification. Qualification for pilots, navigators, and boom operators to fly a KC-135 with the PACER CRAG flight deck modification.

Q160 Instrument Refresher Course Examination.

Q180 Cargo Qualification (Active Duty)/Certification (ARC). Demonstrate and certify on a 17-month recurring basis, cargo loading procedures. The cargo check/certification is required to be completed by each boom operator on a recurring basis. Initial qualification or the latest cargo certification establishes a certification reference month. The recurring certification will be accomplished during the 6-month eligibility period that

includes the currency reference month and the 5 preceding months. The certification will consist of actual cargo loading observed and certified by an instructor on a one-on-one basis. A cargo load is defined as floor loaded or palletized cargo (e.g., mobility bins, AGE equipment, etc.). Passenger baggage bins do not constitute a cargo load. The certification may be administered under static or flight conditions. Dual log with P300 in conjunction with a recurring cargo certification. Document certification on AF Form 1381 and place in the individual's FEF. Individuals exceeding the 17-month certification period, will be unable to perform cargo loading operations unsupervised. (This does not include passenger-only missions). Senior OG/OGV boom operators may receive their cargo certification from NAF if approved by the OG/CC. This certification should be accomplished in conjunction with the pyramid qualification evaluation.

A1.9. Air Refueling ("R") Training Events:**R010 Receiver AR:**

- **Qualification Training.** Consists of practice in AR including closure and contacts. The instructor will demonstrate all limits and manual boom latching. The student must be able to establish contact under simulated conditions of radio silence, pilot director lights out, and tanker auto pilot off. Students must be declared safe in day activity by an instructor prior to advancing to night activity. The first night mission should include training during twilight and extend into the hours of darkness. During the hours of darkness, conduct practice in rendezvous, closure, and contacts until able to maintain contact for 5 minutes without a disconnect.
- **Continuation Training.** Pilots may credit one R010 per sortie by accomplishing a closure from the pre-contact position and maintaining a 5 minute toggles-engaged contact. Instructors and evaluators should accomplish at least two receiver ARs while occupying the right seat.

NOTE: Dual-seat qualified (non-instructor) ACs must be under direct instructor pilot supervision when attempting contacts from the right seat. Copilots must be under direct instructor supervision when attempting contacts from either seat.

R011 Receiver AR, Indoctrination. Ability to maintain pre-contact position, recognize any unsafe condition, and safely separate one aircraft from the tanker.

R012 Receiver AR (Day).

R020 Receiver AR (Night).

R030 Receiver AR (Heavyweight). Requires minimum onload of 25,000 pounds and end refueling gross weight of 250,000 pounds. A 1 percent deviation from these weights is authorized. For qualification training, the pilot must complete a total of 15 minutes toggles-engaged time.

R035 Receiver AR (Heavy Onload). Requires minimum onload of 50,000 pounds of fuel. For qualification training, the pilot must accomplish a total of 15 minutes toggle-engaged time.

R040 Receiver AR Breakaway and Emergency Separation. Initiated with the receiver in the AR envelope. Pilots must demonstrate proficiency in executing the breakaway. For copilots, includes checklist duties only.

R050 Receiver AR, Tanker Auto Pilot-Off. The tanker autopilot must be disengaged and AR contacts must be practiced for a minimum of 10 minutes.

R060 Tanker AR. Credit only one R060 for each receiver cell/ARCT regardless of the number of aircraft. Credit may be awarded if AR contact can be established. 10-minute toggles engaged time is desired. Pilots may receive credit when occupying either pilot or copilot position. Additional pilots and BOs may also log an R060 provided they actually accomplish a refueling in their primary position.

R061 Tanker AR, Indoctrination.

R070 Tanker AR Breakaway and Emergency Separation. Breakaway should be initiated with the receiver in the AR envelope. Pilots and BOs must demonstrate proficiency in executing breakaway. Copilots must demonstrate proficiency in copilot procedures while the pilot executes the breakaway. Navigators must demonstrate proficiency in navigator duties during a breakaway.

R080 Tanker AR Autopilot Off. All axes of the tanker auto pilot must be disengaged and AR contacts must be practiced for a minimum of 10 minutes.

R100 Tanker AR, Heavy Receiver. For this event, -135, -130, C-141, E-3, E-4, E-6, C- 5, C-17, B-52, B-1, B-2, and KC-10 are considered heavy. Dual-log with R060.

R120 Contacts. For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts. Includes the total number of contacts accomplished.

R125 Day Contacts. For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts.

R130 Night Contacts. Loss of night currency will not cause loss of MR status for day operations. Dual-log with R120.

R135 Preparation for Contact Procedures.

R140 Tanker Manual Contact. Prior to attempting, students must demonstrate knowledge of tanker manual operational equipment and procedures. Divide TMO disconnects evenly between manual and automatic retraction of the boom.

R150 Fighter Contact. Log the actual number of contacts accomplished. Boom operators must obtain a contact with the fighter. Additional boom operators may also log a R150 if they accomplish a contact. Formal school, AMWC, and NAF/DOV may credit one R150 accomplished in the BOPPT between actual contacts in the aircraft. Currency not required for alert duty. BOs may log R150 for B-1 refueling, provided he or she is Q022 qualified.

R155 Probe and Drogue Contact.

R160 Radio Silent Breakaway. Event is to be accomplished using radio silent procedures. No radio call will be made during accomplishment of breakaway unless it is needed due to actual emergency or system malfunction. This event may take place with the receiver in either the contact or precontact position. For the event to occur from the contact position, prior coordination must take place among the boom operator, tanker pilot and receiver pilot. As a minimum, the time of occurrence must be coordinated. Should this event be scheduled as part of a radio silent AR, coordination can be done any time prior to the flight. This event may also be accomplished during an AR that does not involve radio silent procedures.

R165 Radio Silent AR. BOs must demonstrate their ability to A/R radio silent to an instructor BO during an actual AR. Any type receiver may be used for this training. The individual's training records must show qualification in radio silent AR prior to achieving mission qualification status, or participating in EMCON operations.

R170 Tanker Heavyweight Offload. Requires a minimum offload of 50,000 pounds and a start AR gross weight of 250,000 pounds. A 1 percent deviation from these weights is authorized.

R180 Radio Silent Visual Signals.

R190 Tanker Drogue AR.

R195 Tanker Wing Pod AR.

R210 Low Altitude Air Refueling. AR below 10,000 feet AGL or 12,000 feet MSL. Crew must complete LAAR training and be certified by the unit commander prior to unsupervised flight. Dual-log with R060. Refer to MCI 11-235, volume 67, for additional information.

R220 Manual Boom Latching.

R225 Reverse AR. (CFIC/CCTS only)

R230 Emergency Boom Hoist.

R400 Tanker Power Management. (CFIC only)

R410 Aerodynamic Effects of Boom Position. (CFIC only)

R420 Simulated Loss of Tanker Engine During AR. (CFIC only)

R430 Turns and Altitude Changes in Contact. (CFIC only)

R440 Aerodynamic Effects of Various Closures. (CFIC only)

A1.10. Special Operations ("S") Training Event:

S003 Parallel Converging Rendezvous. MCI 11-235, volume 27, en route rendezvous used with C-5, C-141, KC-135RT or other heavy type aircraft.

S004 En Route Overtaking Rendezvous. MCI 11-235, volume 27, procedures used with C-130 type receivers.

S036 SOAR Rendezvous. Special operations rendezvous procedures accomplished with aircraft and aircrews certified in these procedures.

S101 Inflight Communications Training. Keying, over the air rekeying and operating procedures using SECURE VOICE equipment. S101 is creditable on exercise and operational missions in which secure communications equipment is installed and keyed, with no additional radio calls required.

S200 NVG Operation. Inflight operation of NVGs, including preflight check.

A1.11. Air Force Specified ("XX") Training Events:

AA01 Qualification Check.

AA02 Qualification Check, Simulator

AA11 Instrument Check

AA12 Instrument Check, Simulator

AA21 Combined Qualification and Instrument Check

AA22 Combined Qualification and Instrument Check, Simulator

PP01 Flight Physical

PP11 Physiological Training

RR01 Flight Records Review

A1.12. Additional Event Identifiers. These identifiers will be used if units choose to track the associated events and items in AFORMS:

E010 Standards of Conduct Briefing

E020 AMC Escort Training

E030 Passport

E040 Base Populace Briefing

E050 Newcomer Substance Abuse Awareness Briefing

E060 Newcomers Social Actions Briefing

E070 Protection of the President

E080 Report Counter Human Resources Intelligence Threat Briefing

E090 Hostile Human Intelligence Threat Briefing

E100 Security and Awareness Training

C010 CWD Driver Operations

C020 Mass Casualty Exercise

C030 Mobility Briefing

C040 Mobility Folder Review

C050 Unit Disaster Training

LE01 Helmet Inspection

LE02 Oxygen Mask Inspection

H010 Ergometry Testing

H020 Dental Exam

H030 Cholera

H040 Flu Shot

H050 Smallpox

H060	Oral Polio
H070	Tetanus
H080	Yellow Fever
H090	TB Tine
H100	Meningococcal
H110	Typhoid
H120	Hepatitis A
H130	Hepatitis B

GROUND TRAINING COURSE DESCRIPTIONS

A2.1. General. This attachment describes specific ground training courses for aircrews.

A2.2. Responsibilities:

A2.2.1. The wing commander will ensure ground training programs are supported by all agencies involved. Host and tenant units will develop agreements to provide required support for training.

A2.2.2. The operations group commander is responsible for establishing and maintaining the academic training program for non-ATS courses. The operations group commander may delegate this responsibility to squadron OPRs. The operations group or squadron OPR will:

A2.2.2.1. Appoint primary and alternate instructors for each non-ATS course to be taught.

A2.2.2.2. Publish a weekly ground training schedule to include date, time, location, attending students and instructor for each course (ATS and non-ATS) scheduled. If a designated instructor for any course is not available, another academic instructor may teach the course. This substitute instructor must be approved either by the squadron commander or designated representative (non-ATS only) and must be given sufficient time to prepare. If either condition is not met, the course will be rescheduled.

A2.2.2.3. Utilize MAJCOM, ATS, or unit-developed products or syllabus for all courses as applicable. Local supplements to courseware is encouraged. Units will locally reproduce MAJCOM provided courseware. Also, units will manage and administer computer-based training (CBT) programs and interactive courseware (ICW) products when made available.

A2.2.2.4. Develop a procedure to monitor the academic training program for course content, currency of materials, instructor availability, and status of training aids. Recommend to the commander changes to existing courses or additional academic training courses required, based on crewmember feedback.

A2.2.2.5. Send recommendations for changes, additions, and deletions of courses through appropriate channels to appropriate MAJCOM with an information copy to HQ AMC/DOT.

A2.3. Instructor Selection and Training. The operations group commander will select course instructors for non-ATS courses on the basis of professional qualifications and aptitude to teach. Instructors must complete either a formal school or a local training program before assuming instructor duties. Local academic instructor program will follow guidance in AFMAN 36-2236, *Guidebook for Air Force Instructors*. **NOTE:** An individual who instructs a class receives credit for that academic training requirement.

A2.4. Records and Documentation. Units should use AF Form 1522, **AFORMS Additional Training Accomplishment Input**, and AF Form 3526, **AFORMS OMR Event Accomplishment Report**, or suitable MAJCOM form to record training accomplishments. ANG and AFRC units may use locally-produced forms. Course instructors will deliver these forms to the appropriate scheduling and training documentation sections within one duty day after the class is taught. Small arms training will be recorded on AF Form 522, **USAF Ground Weapons Training Data**.

A.2.5. Course Descriptions:

A2.5.1. G002—Aircraft Marshaling Training and Examination:

A2.5.1.1. **Purpose.** To ensure crewmembers understand proper marshaling procedures preventing aircraft taxi incidents.

A2.5.1.2. **Description.** Review of AFI 11-218, *Aircraft Operation and Movement on the Ground*, followed by a 20-question test.

A2.5.1.3. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: Squadron

A2.5.2. G003—Flightline Drivers' Training and Examination:

A2.5.2.1. Purpose. To ensure crewmembers understand proper flightline driving and security procedures. Crewmembers who are required to drive on the flightline must receive this course.

A2.5.2.2. Description. Training, examination, and certification to drive vehicles on the flightline according to local procedures. Also, includes a briefing by the flightline constable covering the physical layout of restricted areas and owner or user responsibility for security reporting and detection.

A2.5.2.3. OPR:

- MAJCOM: HQ AMC/DOA/SPO
- Unit: Chief, Airfield Management and Flightline Constable

A2.5.3. G010—Chemical-Biological Warfare Defense (CBWD):

A2.5.3.1. Purpose. To successfully survive and fight in a chemical or biological environment while wearing the ground crew individual protective equipment.

A2.5.3.2. Description. Lesson summary: Academic and hands-on training on ground crew protective equipment components (AFI 32-4001, *Disaster Preparedness Planning and Operations* and AMCP 36-4, *Air Base Operability Training*). Units may combine this training with LS02 (Aircrew Chemical Defense Training), provided both aircrew and ground ensembles are fully covered. Aircrew specific procedures will be covered by Aircrew Life Support personnel. Ground crew protective equipment will be covered by qualified disaster preparedness personnel.

A2.5.3.3. OPR:

- MAJCOM: HQ AMC/CEO
- Unit: Civil engineering readiness flight
- Curriculum development:
 - HQ AFCESA/CEX
 - Local disaster preparedness office
- Instructor: Qualified disaster preparedness instructor

A2.5.4. G020—Aircraft Ground Egress Training:

A2.5.4.1. Purpose. To ensure all crewmembers can explain ground and in-flight egress procedures; are able to identify and document equipment discrepancies, can perform required egress procedures, and are able to identify, locate and utilize appropriate emergency equipment. Also, to ensure all crewmembers understand the operation of fire extinguishers located in the aircraft and fire bottles positioned outside the aircraft.

A2.5.4.2. Description. See AMCI 11-301. For USAFE, reference USAFE 11-301. (AFPD 11-3, *Life Support*; AFI 11-301, *Life Support Program*, and AMCI 11-301, *Aircrew Life Support (ALS) Program*).

A2.5.4.3. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: Squadron and Aircrew Life Support
- Curriculum development: Unit
- Training aids:
 - Actual in the aircraft performance of ground emergency egress procedures is desired. CBT may be used to accomplish training with exception of the fire extinguisher and fire bottle training.
 - Fire extinguisher and fire bottle

- Instructor: Squadron instructor assisted by fire department personnel (fire extinguisher training)

A2.5.4.4. **Additional Information:**

- Scheduling will coordinate with maintenance to ensure aircraft availability for training. Also, contact the fire department for extinguisher training.
- An appropriate maintenance stand and safety equipment must be immediately below windows, hatches, and escape slides being used.
- A safety observer or instructor must be positioned on the maintenance stand to assist as necessary.

A2.5.5. **G025—Aircraft Field Trip:**

A2.5.5.1. **Purpose.** To familiarize students with all crew stations and functions of other crewmembers to facilitate proper crew coordination.

A2.5.5.2. **Description.** Instructors determine field trip content based on the experience and training status of the student. Instructors will discuss or demonstrate crewmember responsibilities during emergency conditions.

A2.5.5.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: Squadron

A2.5.5.4. **Additional Information.** Must be accomplished before initial flight in the KC-135 or in a different mission or series of a -135 aircraft.. May be accomplished in conjunction with G020, Egress Training. Initial qualification navigators and BOs must install nose gear down lock pin from lower nose compartment through observation window.

A2.5.6. **G030—SIOP Command and Control Procedures:**

A2.5.6.1. **Purpose.** To ensure positive control (PC) crewmembers understand command and control procedures as they relate to the SIOP mission.

A2.5.6.2. **Description.** Practice in SIOP message decoding and operational reporting procedures as outlined in EAP-STRAT, volume 5. Includes self-study time, emergency action message (EAM) practice tape tests and a EAM tape evaluation with an open-book written test on concepts from EAP-STRAT, volume 5.

A2.5.6.3. **OPR:**

- MAJCOM: HQ AMC/DOOC
- Unit: Command post
- Training aids and media: PC training material as required
- Instructor: Command post personnel designated in writing as a CCP instructor

A2.5.7. **G033—Unit Alert Procedures:**

A2.5.7.1. **Purpose.** To ensure newly assigned crewmembers understand local procedures, policies, and requirements associated with Alpha and Bravo alert duty.

A2.5.7.2. **Description.** Course includes required professional gear, crew rest requirements, alerting procedures, alert area entry and exit procedures, standard maintenance procedures, alert response routing, specialized briefing requirements, aircraft acceptance and cocking, uncocking and recocking, scramble procedures, daily alert preflight, and alert postures. Scramble and alert start procedures require a tour of the physical layout of local alert taxi routes for launch, increased posture, and exercise recoveries. Emphasis is given to hazards of taxi obstacles, sharp turns, excessive taxi speed, adverse weather, and darkness. Covers all local base and wing directives concerning local and satellite alert operations.

A2.5.7.3. **OPR:**

- MAJCOM: HQ AMC/DOTK

- Unit: Squadron

A2.5.8. **G034—Minimum Interval Take-Off Procedures:**

A2.5.8.1. **Purpose.** Review of procedures and techniques used to launch the maximum number of aircraft in a minimum time interval to improve the survivability of the KC-135 force in an emergency war order situation.

A2.5.8.2. **Description.** Instructor-lead discussion on the aerodynamic differences between a 12- to 15-second MITO and a 30-second formation takeoff, to include local area procedures.

A2.5.8.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Curriculum Development: ATS contractor and squadron
- Training aids and media: CBT (when available) and MITO instructor guide

A2.5.9. **G035—PLZT Goggle Training:**

A2.5.9.1. **Purpose.** Familiarize crews with proper handling, donning, testing and storage of EEU-series PLZT goggles.

A2.5.9.2. **Description.** On modification of their helmet, and with the assistance of a life support technician, each crewmember will demonstrate how to properly handle, don, test and store the PLZT goggles to include locating and installing the power cables. In addition, crews will be familiar with all contents of the flash blindness kits.

A2.5.9.3. **OPR:**

- MAJCOM: HQ AMC/DOTL
- Unit: Squadron life support
- Training aids and media: PLZT goggles, modified helmet
- Instructor: Life support technician

A2.5.10. **G036—Flash Blindness and Thermal Protection:**

A2.5.10.1. **Purpose.** Familiarize crews with proper handling and installation of thermal curtains and donning the eye patch or gold goggles, if available.

A2.5.10.2. **Description.** Each crewmember will demonstrate where to locate and how to properly handle and install the thermal curtains and don the eye patch or gold goggles, if available.

A2.5.10.3. **OPR:**

- MAJCOM: HQ AMC/DOT
- Unit: Squadron
- Training aids and media: CBT and instructor led demonstration in the aircraft.
- Instructor: Squadron instructor

A2.5.11. **G040—SIOP Study:**

A2.5.11.1. **Purpose.** To provide certified crewmembers the information necessary for the effective and successful completion of the unit's SIOP mission.

A2.5.11.2. **Description.** This course will review USSTRATCOM and AMC SIOP procedures. The lesson should be based on any procedural changes that have been implemented. Crews should be given a period of crew-study to assist in strengthening weak areas. Staff specialists should be available to answer crewmember questions. The unit's SIOP study should cover the overall SIOP with emphasis on the unit's SIOP mission.

A2.5.11.3. **OPR:**

- MAJCOM: HQ AMC/DOXS
- Unit: XP
- Instructors: XP and applicable wing staff agencies as required.

A2.5.11.4. **Additional Information.** All crewmembers in units with a primary or secondary SIOP DOC statement will receive this training.

A2.5.12. **G060—Tactics:**

A2.5.12.1. **Purpose.** To provide the crewmember with information necessary for the effective and successful completion of the unit's assigned employment mission.

A2.5.12.2. **Description.** This course will include both specialized briefings and individual or crew study of all areas pertinent to the completion of the unit's assigned tasking. The lesson will be based on information contained in MCM 3-1, volumes 1, 2, and 22, and any documents pertinent to completing the unit's assigned mission. Staff specialists will be available during periods of crew self-study to assist in strengthening weak areas and answering any questions. Each unit's initial tactics training should be tailored to unit's mission tasking, however, as a minimum, this training should review:

Unit Mission Brief:	Composite Force Structure:
SIOP (if applicable)	Operations theory
Conventional employment	Threat warning and information dissemination
Tasking under regional OP plans	Close control versus broadcast (bullseye) control
Peacekeeping operations	High value airborne asset (HVAA) protection
Aircraft Systems:	Low level navigation and AR (if required)
Have Quick	Large formation operations
KY-58	Exercise and Conflict Lessons Learned:
Unit specific equipment (NVG, etc.)	Unit lessons learned
ATO and SPINS:	MAJCOM and theater lessons learned
ATO breakout and use	Threat System Description and Capabilities:
SPIN usage	Surface-to-air and air-to-air systems(including
Use of code words	Blue and gray threat)
IFF procedures	Threat employment doctrine
Aircraft Aerodynamics:	SAFE PASSAGE:
Energy Management	Friendly air defense systems
Fighter maneuvers against AMC aircraft	Authentication procedures
Tactical maneuvering against threat	Airspace control and air defense measures
Compare threat aircraft to AMC aircraft	Unit and theater specific SAFE PASSAGE procedures
Defensive Maneuvering:	Tactical Deception:
Long range and radar missile defense	Basic principle and concepts
Short range IR and guns	AMC aircraft participation and involvement

A2.5.12.3. **OPR:**

- MAJCOM: AMWC, HQ AMC/DOT
- Unit: Tactics Branch
- Training aids: As required (video: Safe Passage Procedures for Aircrews)
- Instructors: Tactics instructors and applicable wing staff agencies, as required

A2.5.12.4. **Additional Information.** Written criterion tests (as required) may be given individually or as a crew effort.

A2.5.13. **G070—Aircrew Intelligence Training.**

A2.5.13.1. **Purpose.** Enhances crewmember understanding of the threat to unit assets and directly contributes to mission success and aircrew survival. Includes unit mission intelligence brief. Training will be conducted by intelligence personnel in coordination with tactics officers, base judge advocate general and security police, as appropriate, to meet aircrew training requirements. This 3-hour annual training requirement may be separated into two 1.5 hour sessions taught semiannually. Credit event on completion of all required training.

A2.5.13.2. **Description.** See AMCI 14-101, *Unit Intelligence Management*. (AFI 14-103, *Threat Recognition Training Program*, AMCI 14-101, *Unit Intelligence Management*).

A2.5.13.3. **OPR:**

- MAJCOM: HQ AMC/INF
- Unit: Intelligence officer, JA, SP
- Curriculum development: Unit
- Instructor: Qualified intelligence instructor.

A2.5.13.4. **Additional Information.** "Laws of armed conflict" (LOAC) and "protection from terrorism" (PFT) will be taught in conjunction with Aircrew Intelligence Training (requires scheduling additional time beyond 3 hours scheduled for AIT). Coordinate with the staff judge advocate for LOAC training and the security police for PFT training. The unit intelligence officer may administer an aircrew intelligence related test to determine if additional training is required.

A2.5.14. **G080—Communications Procedures:**

A2.5.14.1. **Purpose.** To ensure crewmembers possess a thorough knowledge of all communication and COMSEC requirements.

A2.5.14.2. **Description.** This course includes detailed discussion of equipment operation, procedures, and training requirements applicable to peacetime and wartime communications operations. The following subjects will be covered:

Authentication procedures	SIOP
IFF/SIF codes and equipment operation	AFSIR
HAVE QUICK	Flight information handbook review
KY-58, SECURE VOICE Radio	AMCH 33-1, <i>Aircrew Communications Review</i>
L-Band SATCOM	COMSEC user requirements

A2.5.14.3. **OPR:**

- MAJCOM: HQ AMC/DOT/DOA/DOX/STSP
- Unit: ATS contractor and COMSEC responsible officer (CRO)
- Training Aids: CBT fulfills requirement
- Instructor: Wing, operations group, and squadron training personnel if instructor led.

A2.5.15. **G090—Anti-Hijacking:**

A2.5.15.1. **Purpose.** To provide aircrews with training on US Air Force policy and guidance on preventing and resisting aircraft piracy (hijacking).

A2.5.15.2. **Description.** This training will consist of a review of AFI 13-207 and a criterion test (AFI 13-207, *Preventing and Resisting Aircraft Piracy [Hijacking]*).

A2.5.15.3. **OPR:**

- MAJCOM: HQ AMC/DOT.
- Unit: ATS contractor and squadron.
- Curriculum development: As required.
- Training aids: CBT fulfills requirement. May use AFI 13-207 and unit developed criterion test.

- Instructor: Unit designated instructor if instructor led.

A2.5.16. **G100—Laws of Armed Conflict:**

A2.5.16.1. **Purpose.** To ensure crewmembers understand the LOAC.

A2.5.16.2. **Description.** This training includes the principles and rules of the LOAC for aircrews to carry out their duties and responsibilities according to the Hague Convention IV of 1907, the 1949 Geneva Conventions, and status of forces agreements.

A2.5.16.3. **OPR:**

- MAJCOM: HQ AMC/JAG
- Unit: ATS contractor and JA
- Training aids: CBT fulfills requirement. May be instructor led.
- Instructor: JA or intelligence officer if instructor led.

A2.5.16.4. **Additional Information.** Due to the different mission requirements, units have the option of putting increased emphasis on those areas in the course of particular interest to them. During wartime or contingency operations, the intelligence officer may brief LOAC with prior coordination between JA and intelligence. Intelligence is only responsible for presenting the JA's scripted briefing.

A2.5.17. **G110—Protection from Terrorism:**

A2.5.17.1. **Purpose.** To provide detailed guidance for reporting and preventing terrorist activity.

A2.5.17.2. **Description.** This course covers information on threat conditions (THREATCON), security reporting, safeguarding aircraft and COMSEC equipment, and individual responsibilities and protective measures. (AFI 31-210, *The Air Force Antiterrorism (AT) Program*).

A2.5.17.3. **OPR:**

- MAJCOM: HQ AMC/SPO
- Unit: ATS contractor and Security Police Squadron
- Training Aids: CBT fulfills requirement. May be instructor led.
- Instructor: Flight constable or resource protection NCO (if instructor led).

A2.5.18. **G120—ISOPREP Review:**

A2.5.18.1. **Purpose.** Ensure accuracy of crewmembers isolated personnel report.

A2.5.18.2. **Description.** 180 day currency for review of isolated personnel report according to AFDD 34.

A2.5.18.3. **OPR:**

- MAJCOM: HQ AMC/IN
- Unit: IN

A2.5.19. **G130—Instrument Refresher Course (IRC):**

A2.5.19.1. **Purpose.** To ensure pilots and navigators possess sufficient knowledge of all applicable directives, procedures, and techniques to assure safe and professional instrument flying.

A2.5.19.2. **Description.** Guidance for development of unit IRC programs, including topics and subject outlines, course length, instructor prerequisites, and methods of instruction is contained in AFMAN 11-210, Instrument Refresher Course Program. IRC is accomplished according to AFI 11-408 and applicable AMC Supplement. For those weapon systems that receive contractor provided IRC on an annual basis, log IRC upon completion of the ATS course. However, the IRC test must be completed within the checkride eligibility period. (AFMAN 11-210, *Instrument Refresher Course (IRC) Program*).

A2.5.19.3. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: Operations group commander
- Curriculum development: Air Force Flight Standards Agency (AFFSA)
- Training aids: 436th Training Squadron (ACC) Dyess AFB, Texas, Program 1115, Instrument Refresher Course (instructor guide, student guide, 35mm slide presentation). (**NOTE:** Although this program is an ACC product, it can be modified, based on the unit mission, for application all AMC weapon systems.)

A2.5.20. G150 TERPS. Seminar for boom operators providing instruction to safely monitor all instrument departures and approaches.

A2.5.20.1 Purpose. Provide boom operators with the knowledge and skills necessary to monitor the briefed departure and approach and advise the pilots of any deviations that would compromise safety.

A2.5.20.2 Description. Training for boom operators to monitor navigation equipment for correct settings and pilots instruments to ensure the departure and approach procedures are being accomplished as briefed. Course includes:

- A breakdown of standard DoD approach plates
- Explanation of aircraft navigation equipment
- Departure and terminal arrival procedures
- Instrument approach types
- The initial approach portion to the final approach portion
- Final approach procedures

A2.5.20.3 OPR:

- MAJCOM: HQ AMC/DOT
- Unit: ATS contractor and squadron
- Training Aids: CBT fulfills requirement

A2.5.21. G155—Supervised FLIP Study and International Civil Aviation Organization (ICAO) Procedures:

A2.5.21.1. Purpose. Instructor-led review of flight rules and procedures in overseas areas of operation. Course is appropriate for predeployment training.

A2.5.21.2. Description. Instruction on the location of information, flight rules, and procedures in overseas areas. Includes a review of Foreign Clearance Guide use, organization, and content. Also includes review of FLIPs in relation to ICAO procedures. Supplemental information on Jeppesen publications, summary of airfield restrictions, and aircrew border clearance guide is also presented.

A2.5.21.3. OPR:

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Training aids and media: G607/G155 instructor guide with listed classroom aids and graphics.

A2.5.22. G160—Overwater Navigation Procedures:

A2.5.22.1. Purpose. To ensure navigators understand overwater navigation procedures and techniques, as well as inherent equipment limitations, to successfully accomplish extended overwater navigation missions.

A2.5.22.2. Description. Course provides navigational techniques, equipment limitations, and safety considerations to be used in overwater navigation. Essential elements of overwater mission planning, such as ICAO procedures, FIRs, overwater track system, reporting and fix requirements will be covered.

A2.5.22.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Training aids and media: CBT or instructor led discussion/CTD. CBT fulfills requirement.

A2.5.22.4. **Additional Information.** If instructor led, instructors have the option to use a CTD exercise as an evaluation or criterion test.

A2.5.23 **G161—Polar Navigation Procedures:**

A2.5.23.1. **Purpose.** To ensure navigators have sufficient knowledge of polar navigation procedures to deploy to and navigate in polar regions.

A2.5.23.2. **Description.** Course provides navigators with a thorough review of polar navigation procedures and techniques, celestial considerations, equipment operations and limitations, and inflight operations. An associated CTD requires working knowledge of polar chart projections, polar and subpolar grid formulas, chart transition, and high latitude celestial computations.

A2.5.23.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Training aids and media: CBT, G161 Instructor Guide. CBT fulfills requirement.

A2.5.24. **G170—Celestial Training Device:**

A2.5.24.1. **Purpose.** To provide navigators practice in celestial navigation procedures, pacing, and computations on a real-time ATD.

A2.5.24.2. **Description.** The CTD consists of a keyboard, CRT, printer, and microcomputer. The CTD program simulates worldwide sun, moon, and planet data for the performance of day and night celestial navigation. Continuation training requirements call for all navigators to complete a minimum of one CTD per year. Ground Training Level 3 navigators will complete at least one per semiannual period. Units may be more restrictive in their local instructions.

A2.5.24.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: Squadron

A2.5.25. **G182—Hazardous Cargo:**

A2.5.25.1. **Purpose.** To familiarize crewmembers with procedures and restrictions when carrying hazardous materials.

A2.5.25.2. **Description.** Provides instruction reviewing AMC aircrew hazardous materials procedures and AFI 11-204. (AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*; AFI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*). The syllabus includes:

Hazardous Classification
Packaging
Marking and Labeling
Certification

Aircraft Loading and Passenger Movement
Tactical and Contingency Airlift
Aircrew Responsibilities

A2.5.25.3. **OPR:**

- MAJCOM: HQ AMC/DOT
- Unit: ATS contractor
- Training Aids: CBT

A2.5.26. G183—Floor Loading:

A2.5.26.1. Purpose. To provide BOs instruction in loading non-palletized cargo on KC-135s not fitted with cargo roller systems.

A2.5.26.2. Description. Training consists of CBTs, a cargo loading exercise, manual DD Form 365-4, **Weight and Balance Clearance Form F—Tactical**, computation, and emergency procedures review. Planned cargo load plans will be loaded on the aircraft and critiqued by the instructor. Aerial refueling program managers may exempt highly experienced boom operators from the aircraft loading exercise; boom operators assigned to HQ AMC agencies and NAF/DOV are also exempt from this requirement.

A2.5.26.3. OPR:

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Training aids and media: Load plans, CBT
- Instructor: Qualified cargo loading instructor

A2.5.27. G184—Palletized Cargo Loading:

A2.5.27.1. Purpose. Provide BOs instruction in loading palletized cargo on KC-135s fitted with the cargo roller system.

A2.5.27.2. Description. Training consists of classroom instruction and a cargo loading exercise. Topics include roller system installation and removal, cargo limitations and restrictions, loading and unloading procedures, ATOC communications and coordination, passenger considerations and customs procedures.

A2.5.27.3. OPR:

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Training aids and media: CBT fulfills requirement
- Instructor: Qualified cargo loading instructor

A2.5.28. G190—Aircraft Servicing:

A2.5.28.1. Purpose. To ensure all crewmembers are familiar with the procedures necessary to service their aircraft at a post-SIOP recovery base when qualified maintenance support is not available. Completion of this course does NOT qualify crews to perform maintenance tasks, but does allow them to assist qualified maintenance personnel in ground refueling operations.

A2.5.28.2. Description. Classroom instruction or CBT covering servicing requirements of the aircraft, safety, approved fuels, lubricants and fluids, frequency of servicing, and aircraft servicing locations and requirements. Course includes field trip for hands-on demonstration by qualified maintenance personnel or a unit instructor boom operator who has completed the Maintenance Qualification Training Program (MQTP) for servicing.

A2.5.28.3. OPR:

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor and squadron
- Training aids and media: CBT or classroom instruction.
- Instructor: Qualified maintenance personnel/unit instructor boom operator who has completed MQTP.

A2.5.29. G210—Alert Start Procedures:

A2.5.29.1. Purpose. To ensure pilots are able to perform the procedures required to quick start an aircraft cocked on alert status.

A2.5.29.2. **Description.** Course covers the physical characteristics, operating procedures, checklists, and cockpit indications of normal and abnormal APU alert starts. Pilots will review hazardous area limits during alert starts.

A2.5.29.3. OPR:

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor
- Training Aids: CBT fulfills requirement.

A2.5.29.4. Additional Information. G210 must be completed prior to the initial accomplishment of P290, Alert Start. Initial accomplishment of G210 may be done in conjunction with G033, Alert Procedures.

A2.5.30. G222 thru G227—Aircraft Systems Refresher:

A2.5.30.1. Purpose. To provide an annual review of critical aircraft systems in conjunction with systems refreshers accomplished in the ATD.

A2.5.30.2. Description. Lessons cover hydraulic system (G222), flight controls (G223), fuel system (G224), electrical system (G225), environmental system (G226), and engines, propulsion system and APU (G227). In addition, BOs have special lessons in electrics and fuel systems (G228) and AR system (G229).

A2.5.30.3. OPR:

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor
- Training aids and media: CBT fulfills requirement.

A2.5.30.4. Additional Information. Pilots must complete systems refresher courses G222-G227. Navigators need complete only the APU portion of G227. BOs must complete G228-G229 and the APU portion of G227.

A2.5.31. G230—Crew Resource Management (CRM) Refresher:

A2.5.31.1. Purpose. Mission-specific continuation CRM training conducted according to AFI 36-2243 and AMC Supplement 1. May be accomplished in conjunction with CRM simulator.

A2.5.31.2. Description. Reinforces initial CRM training through an academic review of the AMC common core subjects (according to AFI 36-2243 and AMC Supplement 1) with specific emphasis on an annual refresher topic.

A2.5.31.3. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: ATS contractor

A2.5.31.4. Additional Information:

- G230 must be accomplished before G242 and G243, CRM Simulators.
- CRM Prework. Completion of any CRM prework is required prior to attending CRM refresher training. Prework will be distributed to organizations in sufficient time and supply to allow completion.

A2.5.32. G231—Initial Crew Resource Management (CRM):

A2.5.32.1. Purpose. Aircraft and crew-specific CRM training conducted according to AFR 36-2243, *Cockpit/Crew Resource Management Program*, and AMC Supplement 1.

A2.5.32.2. Description. Introduces AMC common core subjects (according to AFI 36-2243 and AMC Supplement 1). If initial CRM is not accomplished at the formal school, it must be accomplished within 1 year of reporting to home station. Dual log with G230 for AFORMS tracking purposes.

A2.5.32.3. OPR:

- MAJCOM: HQ AMC/DOTA
- Unit: ATS contractor

A2.5.32.4. **Additional Information.** Completion of any CRM prework, if applicable, is required prior to attending CRM training. Pework will be distributed to organizations in sufficient time and supply to allow completion. Dual log accomplishment of G231 with G230 for AFORMS tracking purposes.

A2.5.33. **G242-G243—Crew Resource Management (CRM) Simulators 1 and 2:**

A2.5.33.1. **Purpose.** To provide hands-on application of classroom-presented CRM refresher concepts through CRM simulator training addressing human factors issues in a realistic mission scenario.

A2.5.33.2. **Description.** CRM Mission Oriented Simulator Training (MOST) conducted according to AFI 36-2243 and AMC Supplement 1.

A2.5.33.3. **OPR:**

- MAJCOM: HQ AMC/DOT
- Unit: ATS contractor

A2.5.33.4. **Additional Information:** Should be accomplished in conjunction with G230, CRM Refresher. Optimal scheduling of CRM simulator 1 is not later than 5 days following completion of G230.

A2.5.34. **G244—Crew Coordination.**

A2.5.34.1. **Purpose.** To improve nonpilot crewmembers knowledge of standard indications and settings for the pilot's instruments and flight controls for takeoff, approach and landing.

A2.5.34.2. **Description.** Course details the proper settings for trim, spoilers, flaps, brakes, etc., and proper indications for altimeters, starter switches, fuel panel, etc., for takeoff, approach, and landing phases. Also includes required briefing items.

A2.5.34.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor
- Training Aids: CBT

A2.5.34.4. **Additional Information:** Course is available on CBT and is available for units as a unit directed training event if desired.

A2.5.35. **G252-G254—Refresher Simulators:**

A2.5.35.1. **Purpose.** To review annually normal, abnormal, and emergency procedures; aircraft performance; and aircraft systems.

A2.5.35.2. **Description.** ATS contractor-administered simulator courses for pilot and copilots. Three simulators accomplished annually: G252, Electrics and Fuels; G253, Engines and Pneumatics; and G254, Flight Controls and Maneuvers.

A2.5.35.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor

A2.5.35.4. **Additional Information:** See attachment 1 for continuation training credit of AC upgrade and CFIC simulators.

A2.5.36. **G260—Instrument Simulator:**

A2.5.36.1. **Purpose.** To review annually the instrument flying procedures found in AFMAN 11-217 with special emphasis on ICAO instrument flying procedures.

A2.5.36.2. **Description.** ATS contractor administered simulator courses for pilots and copilots. Includes pre-attendance study materials and prebrief. Profile includes ICAO low altitude instrument approaches, fix-to-fix navigation, and holding pattern and procedure turn entries.

A2.5.36.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS Contractor

A2.5.37. **G270—Tactics Simulator:**

A2.5.37.1. **Purpose.** To practice tactical maneuvers applicable to the KC-135 in the simulator prior to attempting maneuvers in flight.

A2.5.37.2. **Description.** Units should tailor the simulator to their specific taskings. Prebrief should discuss threat briefs, ATOs and SPINs, mission planning, and threat awareness and avoidance. Profile includes maneuvers described in MCI 11-235, volume 22. Maneuvers include but are not limited to: retrograde and extension maneuvers, IR missile defense and gun jink maneuvers, combat departures and arrivals, and toboggan descent to low altitude AR.

A2.5.37.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: Tactics program manager
- Instructor: Unit tactics instructors

A2.5.37.4. **Additional Information.** Because no specific threat information is required for this training, the simulator is unclassified. Tactic simulators can only be given during unit directed (i.e., government use) periods and should not interfere with ATS contract training. Instruction will be given by tactics instructors, but actual simulator operation will be done by the ATS contractor. A full crew complement is highly recommended to enhance crew coordination, aircrew survival, and overcome systems degradations.

A2.5.38. **G280—Small Arms Training:**

A2.5.38.1. **Purpose.** To train crewmembers in successful engagement of enemy targets within the range and capabilities of their assigned weapon.

A2.5.38.2. **Description.** Academics and firing range exercise; includes use of force, live fire, or firearms simulator training; simulator training may not be used for initial training (AFI 36-2226, *Combat Arms Training and Maintenance (CATM) Program*, AFI 31-207, *Arming and Use of Force by Air Force Personnel*).

A2.5.38.3. **OPR:**

- MAJCOM: HQ AMC/SPX
- Unit: Security police squadron (SPS)
- Instructor: Qualified SPS combat arms instructor

A2.5.38.4. **Additional Information.** Course will meet requirements outlined in AFI 36-2226 and includes use of force training from AFI 31-207.

A2.5.39. **G290—Airport Qualification Program (AQP):**

A2.5.39.1. **Purpose.** Aircrews are required, for global operations, to familiarize themselves with worldwide destination airfields. Although this familiarization should be accomplished prior to every mission, the squadron

commander will determine the need and associated currency requirement for logging G290 prior to departure. (See the applicable AFI 11-XXXX volumes for additional information.)

A2.5.39.2. **Description.** Familiarization includes applicable review of: FLIP documents, AMC Summary of Airfield Restrictions, AQP video tapes (24 audiovisual documentaries of 168 select worldwide airports), DoD Foreign Clearance Guide, and notices to airmen. A review of the Theater Indoctrination Program is also included when applicable for deployment or as directed by unit commanders. The commander, operations officer, or their designee's signature on the flight orders signifies the aircrew has accomplished all required pre-departure training.

A2.5.39.3. **OPR:**

- HQ AMC/DOT
- Unit: Squadron or airfield management (reference material and video tapes)
- Instructor: Self-paced

A2.5.39.4. **Additional Information.** The squadron commander will determine the need and the associated currency requirement for accomplishing G290 prior to deployment. The commander, operations officer, or their designee's signature on the flight orders signifies the aircrew has accomplished all required pre-deployment training.

A2.3.40. **G300—Hydroplaning:**

A2.3.40.1. **Purpose:** To teach pilots how to react to hydroplaning situations on wet runways.

A2.5.40.2. **Description:** Course describes how to recognize hydroplaning on wet runway surfaces and what actions to take for braking.

A2.5.40.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor
- Training aids and media: CBT

A2.5.40.4. **Additional Information:** Course is available on CBT and is available for units as a unit directed training event if desired.

A2.5.41. **G310—Weather Avoidance Radar:**

A2.5.41.1. **Purpose:** To teach pilots and navigators how to tune radar for weather detection and avoidance.

A2.5.41.2. **Description:** In-depth review on procedures and techniques for optimum tuning of the radar indicator for thunderstorm detection.

A2.5.41.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor
- Training aids and media: CBT

A2.5.41.4. **Additional Information:** Course is available on CBT and is available for units as a unit directed training event if desired.

A2.5.42. **G310—INS/DNS:**

A2.5.42.1. **Purpose:** To teach pilots how to operate and understand the INS/DNS.

A2.5.42.2. **Description:** In-depth review on procedures and techniques for operating the INS/DNS.

A2.5.42.3. **OPR:**

- MAJCOM: HQ AMC/DOTK
- Unit: ATS contractor
- Training aids and media: CBT

A2.5.42.4. **Additional Information:** Course is available on CBT and is available for units as a unit directed training event if desired.

A2.6. Life Support (LS) Training Event Descriptions:

A2.6.1. LS01 Life Support Equipment (LSE)

A2.6.1.1. **Purpose.** Provides training on the use of available life support equipment and the principles, procedures, and techniques needed to permit survival in varying climatic conditions and environmental regions. This class is conducted as part of the training for initial qualification students.

A2.6.1.2. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: Aircrew Life Support

A2.6.2. LS02 Aircrew Chemical Defense Training (ACDT).

A2.6.2.1. **Purpose.** Provide training to all crewmembers stationed in or subject to deployment or operations through a chemical threat area (CTA).

A2.6.2.2. **Description.** See AMCI 11-301 for complete course description. For USAFE, reference USAFE 11-301. This course includes in-depth instruction in donning the aircrew defense ensemble, post bailout procedures, and decontamination and doffing. Crewmembers participating in local exercises (e.g., ORI, ORE, MOBEX, etc.) will receive credit for ACDT provided the objectives listed in AMCI 11-301 are met. Units may combine this training with G010 (Chemical-Biological Warfare Training), provided both aircrew and ground ensembles are fully covered (AFPD 11-3, AFI 11-301, AMCI 11-301). Aircrew specific procedures will be covered by aircrew life support personnel. Ground crew protective equipment will be covered by qualified disaster preparedness personnel.

A2.6.2.3. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: Aircrew Life Support

A2.6.3 LS03 Combat Survival Training (CST):

A2.6.3.1. **Purpose.** To provide aircrews with the information necessary to survive in any peacetime or wartime environment.

A2.6.3.2. **Description.** This course includes in-depth instruction in parachuting, physiological and psychological factors, personal protection, land navigation, combat recovery and signaling, survival medical training, Code of Conduct, and SAR communications. See AMCI 11-301 for course description. For USAFE, reference USAFE 11-301. Course satisfies self-aid and buddy-care requirements of AFI 36-2238, *Self-Aid and Buddy Care Training* (AFPD 11-3, AFI 11-301, AMCI 11-301).

A2.6.3.3. OPR:

- MAJCOM: HQ AMC/DOT
- Unit: Aircrew Life Support

A2.6.3.4. **Additional Information.** Each unit is responsible for tailoring training to meet unit needs IAW AFI 36-2209, *Survival and Code of Conduct Training*. CST “hands on” requirement may be met by classroom or field training at unit commander discretion based on unit mission. Course length will not exceed 1 training day. Units may schedule crewmembers to complete both CST and WST events in a single training day.

A2.6.4. LS04 Water Survival Training:

A2.6.4.1. **Purpose.** To provide aircrews with the information necessary for a water survival situation.

A2.6.4.2. **Description.** Training for each crewmember with all weapons system specific flotation devices and components available during overwater emergency (AFPD 11-3, AFI 11-301, AMCI 11-301). See AMCI 11-301 for course description. (For USAFE, reference USAFE 11-301)

A2.6.4.3. OPR

- MAJCOM: HQ AMC/DOT
- Unit: Aircrew Life Support

A2.6.4.4. **Additional Information.** Each unit is responsible for tailoring training to meet unit needs. WST “hands on” requirement may be met by classroom or pool training at unit commander discretion based on unit mission. Course length will not exceed 6 hours. Units may schedule crewmembers to complete both WST and CST in a single training day.

AIRCREW TRAINING DOCUMENTATION

A3.1. General Information. This attachment provides guidelines on proper training documentation. Instructions are provided for Multicommand (MC) Form 21, **Aircrew Training Record**, MC Form 44, **Aircrew Training Progress Report**, MC Form 45, **Aircrew Training Accomplishment Report**, and MC Form 46, **Summary/Closeout Training Accomplishment Report**, and aircrew training guides.

A3.1.1. Initiate a training folder (MC Form 21 or other MAJCOM-approved folder) for AFCAT 36-2223 formal training (either at formal school or in-unit), mission qualification, special qualification or certification training, in-unit upgrade program to the next higher crew qualification, requalification training (either at formal school or in-unit), or for any corrective action or additional training.

- The unit operations officer may waive the training folder requirement if corrective action or additional training is limited. If initiated, the instructor or flight examiner who evaluated the aircrew member's performance will enter comments pertinent to the training deficiency on MC Form 44 or the training guide. Use the existing training folder for end-of-course evaluations that result in additional training.
- At the unit's discretion, training folders for an individual undergoing more than one training program in a short period of time may combine all training into one MC Form 21; e.g., a tanker copilot upgrading to AC may have his or her upgrade, mission qualification, and formation lead training combined in one folder.

A3.1.2. Formal schools will send MC Form 21 with all training records to the trainee's gaining unit. Squadron commanders will review formal school training records and enter appropriate comments on the training guide progress record or MC Form 44.

A3.1.3. Squadrons will maintain the training folders for their personnel in a location readily accessible to instructors and supervisory personnel. The trainee may review his or her folder at any time.

A3.1.4. The instructor or trainer will review the training folder, to include MC Forms 44 and 45 or the training guide, prior to all training periods. Those areas not previously accomplished or those in which crewmembers require additional training, will be noted for possible inclusion during the current training period. Operations officers will review active training folders quarterly, and flight commanders or squadron training representatives will conduct a monthly review. Monthly and quarterly reviews will be annotated on MC Form 44 or in the training guide.

A3.1.5. Upon completion of training, place the summary/closeout report (MC Form 46) in the individual's flight evaluation folder (FEF). (For USAFE, follow USAFE/DOV guidance.) Squadrons will retain all MC Forms 21 for 1 year, then return to the crewmember. Do not insert MC Forms 21, 44, or 45 or training guide into FEFs. (USAFE--after one year, training offices will retain the MC form 46 in the aircrew members training folder (MC Form 21) and all other records may be returned to the individual IAW paragraph 1.8.3.3.)

A3.1.6. If training guides are not used, MC Forms 44, 45, and 46 may be used for ATS and formal school courses or they may develop their own training forms approved by the appropriate MAJCOM with an information copy sent to HQ AMC/DOT.

A3.1.7. Units may develop their own versions of MC Forms 21, 44, 45, and 46 that closely parallel the original forms. Unit forms must be approved by appropriate MAJCOM (for AMC and AMC-gained ARC, HQ AMC/DOT is the approval authority).

A3.1.8. For purposes of training documentation, classroom only training conducted at the unit should be identified as Academic Training (AT). Ground Training (GT) will be considered all training conducted outside the classroom not associated with a flight or artificial training device.

A3.2. Instructions for MC Form 21. This form is a folder constructed of hard stock paper. The inside covers have tables for documenting training. MC Forms 44, 45, and 46 and additional information (waivers, memorandums, etc.) will be attached through the centered holes of the folder. Training guides will be placed

inside the folder. The form is available through unit publications distribution offices or the AMC Command Publication Distribution Center. Comply with the following when documenting aircrew training on the form.

NOTE: Formal school instructors using ATS courseware are not required to complete the following sections of the MC Form 21: ground training summary, written evaluations, and flying training summary if this information is tracked by other means and sent to the gaining unit with MC Form 21.

A3.2.1. Trainee Information (cover): Provides trainee and course information.

- Name and grade. Self-explanatory.
- Aircrew position. Self-explanatory. (For aircrew members in an upgrade program, enter the aircrew position to which they are upgrading).
- Unit of assignment. Self-explanatory.
- Type of training. Enter formal course title or, for special mission qualification, enter type, e.g. SOAR, formation lead etc. For other types of training, enter a descriptive identifier.
- Class number. Enter formal school class number; otherwise, leave blank.
- Course number. Enter only the AFCAT 36-2223 formal course number, e.g., "KC135AC," etc. Otherwise, leave blank.

A3.2.2. Ground Training Summary (inside left). (This section provides a chronological record of ground training events). Record nonflying training events. Entries are required for CTD, SIM, OFT, PTT, CPT, WST, and GT. Entries are required on the MC Form 21 for in-unit academic instruction conducted according to formal school courseware. Classroom academic training will be identified as AT.

- Date. Self-explanatory.
- Training period. Enter sequentially numbered training period designators, e.g. "CPT-1," "WST-2," "GT-3," etc., or specific course identifier.
- Status. Enter incomplete (INC) and the reason, e.g. "INC-MX" (maintenance) or "INC-PRO" (trainee proficiency) when an additional training period, over those remaining, will be required to accomplish the lost training events originally scheduled for that training period; otherwise, leave blank.
- Instructor or trainer (qualification). Enter the name of the instructor or trainer and aircrew qualification, e.g. aircraft commander (AC), instructor pilot (IP), instructor navigator (IN), etc.
- Training time. Self-explanatory. Do not include time normally associated with prebriefing and debriefing.

A3.2.3. Training Period Designators. Codes to describe training periods. Formal training schools may use more descriptive designators if required.

A3.2.4. Written Evaluations. If applicable and desired, record data for the inflight evaluation required to complete the training program.

- Date. Enter the date the written evaluation was satisfactorily completed.
- Type. Enter the AFI 11-408 description or other appropriate identifier.
- Grade. Enter according to AFI 11-408.

A3.2.5. Performance Evaluation Summary. Record data on required evaluations including reevaluations (if applicable).

- Date recommended. Enter the date recommended for a performance evaluation (CPT, WST, or flight).
- Type evaluation. Enter AFI 11-408 evaluation description or other appropriate identifier.
- Instructor (qualification). Enter the name and aircrew qualification of the instructor recommending the student for an evaluation.
- Operations review. With the initials of the reviewer, indicate a records review has been accomplished following recommendation for an evaluation. **NOTE:** Flight commanders or supervisors will accomplish reviews during formal training courses. Squadron commanders or operations officers are required to accomplish reviews prior to flight evaluations.
- Date evaluated. Enter the date the evaluation was completed.
- Evaluator. Self-explanatory.

- Grade. Enter according to AFI 11-408.

A3.2.6. Flying Training Summary. This section provides a chronological record of flying training sorties. Log all sorties scheduled even if canceled by external factors such as weather (WX) or maintenance (MX).

- Date. Self-explanatory. On operational missions, enter inclusive dates, e.g., 28 Jul - 7 Aug 95.
- Training period. Enter sequentially numbered training period designators, e.g., "S-1," "AD-1," "O-2," etc.
- Status. Enter "INC" and reasons, "WX," "MX," or "PRO" when an additional training flight, over those remaining, will be required to accomplish lost training events originally scheduled for that period (INC-WX); otherwise, leave blank.
- Instructor (qualification). Enter the name and aircrew qualification of the instructor.
- Mission time. Enter the total flight-time of the training or operational mission in the top half of the block. If documentation of seat-time is required, enter the flight-time the trainee was actually in the seat in the lower half of the block.
- Cumulative time. Use this block to enter the individual's total cumulative flight-time in the specific training course. Enter total cumulative flight-time in the top half of the block and, if required, the total cumulative seat-time in the lower half of the block.

A3.2.7. Performance and Knowledge Standards. (For use with MC Form 45, see paragraph A3.4.11.).

A3.2.8. Grading Codes. (For use with MC Form 45, see paragraph A3.4.8.).

A3.3. Instructions for the MC Form 44. This form provides a narrative description of training missions and is also used for documenting operations review of training progress. File MC Forms 44 in order with the most recent flight on top. **NOTE:** MC Form 44 is optional if a training guide is used to record training. This form may be used for ATS and formal school courses at their discretion or they may develop their own training forms approved by the appropriate MAJCOM, with information copy sent to HQ AMC/DOT.

A3.3.1. Training Period and Date (Item 1). Training period is either ground, simulator, or flight, i.e., AT-1, GT-1, SIM-3, S-4, etc. Also, annotate the date the training occurred.

A3.3.2. AT, GT, FLY, and ATD (Items 2, 4, and 6). Annotate time allocated for training and keep a running total (Items 3, 5 and 7) by adding previous totals to current training period time (**not applicable for AETC**). Classroom academic training periods will be annotated as AT and tabulated under the ground training block.

A3.3.3. Total Training Time (Item 8). Keep a running total of all training time (add Items 3, 5, and 7).

A3.3.4. Remarks and Recommendations (Item 9). Describe the mission scenario. Local overprints are authorized. Comments will elaborate on trainee strengths and weaknesses, identify problem areas, record unusual circumstances, and indicate student progress. Recommendations will be specific and include tasks requiring further training and the type of training required. If more space is required for annotating remarks, draw vertical arrows through sortie information heading section (Items 1 through 8) of following block or form and continue remarks.

A3.3.4.1. Operations Review. In addition to reviewing all MC Form 44 entries, the flight commander or squadron training representative will conduct a monthly review of active status MC Forms 21. The squadron commander or operations officer will review active status MC Forms 21 at least once each quarter. Document reviews on an MC Form 44. The reviewer will annotate "monthly review" or "quarterly review," as applicable, in the training period block. Write comments concerning the trainee's progress, status, or recommendations in the mission profile, comments, and recommendations block.

A3.3.4.2. Monthly reviews are not required for formal school courses except in documented cases of unsatisfactory progress. ATS personnel will review the students records and ensure all required training is completed prior to entering flight training. If problems are encountered during the flying phase, the squadron will conduct reviews necessary to document unsatisfactory progress.

A3.3.5. Instructor Block (Item 10). Instructors will print and sign their name and annotate their rank and crew qualification.

A3.3.6. Students Block (Item 11). Students will print and sign their name.

A3.3.7. Reviewer Block (Item 12). For monthly and quarterly reviews, squadron commanders, operations officers, or flight commanders will print and sign their name and indicate their position. Flight commanders may use their initials in the review block after reviewing individual AMC Form 44 entries.

A3.3.8. MC Form 44 will be completed and reviewed by the student prior to his or her next training period.

A3.4. Instructions for the MC Form 45. This form tracks, for each sortie, individual event and task accomplishment and grades. Units will overprint event and task listings, total number of repetitions required, and the required proficiency level (RPL) for each event and task. Use separate MC Forms 45 for simulator and flight training. Maintain MC Forms 45 on the right side of MC Form 21.

NOTE: The MC Form 45 is optional if a training guide is used to record training. The MC Form 45 may be used for ATS and formal school courses at their discretion or they may develop their own training forms approved by the appropriate MAJCOM, with an information copy sent to HQ AMC/DOT.

A3.4.1. Name. Self-explanatory.

A3.4.2. Crew Position. Self-explanatory.

A3.4.3. Course or Phase of Training. Enter the AFCAT 36-2223 formal course identifier, e.g., KC-135AC. For special mission qualification, enter the type and identify the method of training, e.g., WST training, flying training, etc.

A3.4.4. Sortie. Enter sortie number e.g., S-1, S-2, CPT-1, etc.

A3.4.5. Date.

A3.4.6. Training Event and Task Listing. Reflects the tasks and subtasks in the training program that require specific student performance or knowledge proficiency standards.

A3.4.7. Number Accomplished. Reflects the number of times an event was accomplished on that sortie.

A3.4.8. Grade. Enter a "B", "F", "P", "S", or "U" as appropriate.

- "1"—Item must be accomplished once by the crewmember, but does not require proficiency.
- "B"—Briefing item only.
- "F"—Familiarization item; proficiency is not required. The operations group commander or equivalent operations function will determine whether "F" items are completed by briefing, demonstration, observation, or actual accomplishment.
- "P"—Proficient; crewmember has achieved the required proficiency level.
- "S"—Satisfactory; crewmember has not achieved the required proficiency level but progress is satisfactory.
- "U"—Unsatisfactory; crewmember was previously proficient, but has regressed or progress is unsatisfactory.

NOTE: Once a crewmember has received "P" for an event, the only subsequent grade allowed is either "P" or "U." Any event graded "U" must have an associated remark on MC Form 44.

A3.4.9. Total Number Required. Indicates the total repetitions of an event or task required by the course syllabus.

A3.4.10. Total Number Accomplished. Total of the number of repetitions actually accomplished.

A3.4.11. Required Proficiency Level (RPL). RPL for the specific event and task. Each event and task will have a performance standard designated for the required proficiency level the crewmember must achieve. In addition, each event and task may have (optional) a knowledge standard designated and used in the same manner as a performance standard. The standards for specific events are either listed in the applicable master task list (MTL) and evaluation standards document (ESD) for each weapon system or identified in this instruction. For those weapons systems that do not have any RPL listing, all events will have an RPL of "3" for performance and "C" for knowledge (if knowledge standards are used in addition to performance standards). **EXCEPTION:** One-time events required for familiarization and not listed in the MTL and ESD or specific AFI 11-XXXX volume will not have performance and knowledge standard assigned. Performance and knowledge standards follow:

Event and Task Performance Standard

Code	Performance is:	Definition:
1	Extremely Limited	Individual can do most activities only after being told or shown how.
2	Partially Proficient	Individual can do most of the behaviors, but not necessarily to the desired levels of speed, accuracy, and safety.
3	Proficient	Individual can do and show others how to do the behavior in an activity at the minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. For copilots, proficiency may involve actual aircraft control or copilot duties only. For instructors, proficiency includes the ability to demonstrate, instruct, and supervise ground and flight activity.
4	Highly Proficient	Individual can do behaviors in an activity at the highest level of speed, accuracy and safety.

Event and Task Knowledge Standard

Code	Knowledge of:	Definition:
A	Facts and Nomenclature	Individual can identify basic facts and terms about the subject and when used with a performance code, can state nomenclature, simple facts, or procedures involved in an activity.
B	Principles and Procedures	Individual can explain relationship of basic facts and state general principles about the subject and when used with a performance code, can determine step-by-step procedures for sets of activities
C	Analysis, and Operating Principles	Individual can analyze facts and principles and draw conclusions about the subject and when used with a performance code, can describe why and when each activity must be done and tell others how to accomplish activities
D	Evaluation and Complete Theory	Individual can evaluate conditions and create new rules or concepts about the subject and when used with a performance code, can inspect, weigh, and design solutions related to the theory involved with activities.

A3.5. Instructions for the MC Form 46:

A3.5.1. For each formal training program, a summary and close-out report will be completed detailing the individual's strengths, weaknesses, overall performance, and other pertinent information. This report will be filed in the crewmembers FEF. (For USAFE, follow USAFE/DOV guidance.)

A3.5.2. Squadron commanders, operations officers and flight commanders will ensure the comments on this form do not reflect personnel opinions or biases. All comments must be supported by information contained in the MC Forms 44 and 45 or training guides as applicable. At formal schools, the instructor will accomplish the MC Form 46 and the squadron commander's signature is optional.

A3.6. Aircrew Training Guides. If available, use aircrew training guides (TG) for training programs.

A3.6.1. The ATS contractor will develop TGs. Units may produce TGs when the ATS contractor is unable to provide them. TGs will be developed in accordance with AFI 36-2201. Coordinate TG development through appropriate MAJCOM with an info copy sent to HQ AMC/DOT.

A3.6.2. Initiating TGs. Training and resource management personnel in each unit will initiate a TG on crewmembers prior to their entering any phase of qualification training. These TGs will be inserted in MC Form 21 and may be used in lieu of MC Forms 44 or 45.

A3.6.3. Use of TGs. Specific instructions for annotating training are included in each TG. TGs will be placed in an MC Form 21 and maintained in accordance with paragraph A3.1.5.

A3.6.3.1. Active status TGs will be carried by the student during all training and operational missions and made available to the instructor for review and annotation. The student will review the TG and initial the training progress record prior to the next training period.

A3.6.3.2. Complete the training progress record portion of the TG in sufficient detail to specify areas of training accomplished, areas needing improvement, recommended specific study areas for the trainee, and recommended training for the next training period. When the trainee attains sufficient knowledge, experience, and prerequisites for upgrade, the instructor will recommend an evaluation and state: "Recommend evaluation for (crew position)" on the training progress record. Trainees will not be recommended for an evaluation if a TG required event is incomplete or requires corrective action. **EXCEPTION:** Copilot ATS progress reviews (evaluations) may be administered with open areas in the TG.

A3.6.3.3. On missions without an instructor or examiner, the senior qualified counterpart (e.g., AC for copilots, etc.) will accomplish required training for those areas not requiring an instructor. Annotate applicable training information in the TG.

A3.6.3.4. When an initial qualification flight evaluation is not successfully completed and additional training is required, the flight commander will annotate deficient areas on reproduced pages of the appropriate TG and training progress record. This mini-TG will be placed in the MC Form 21 and used to document completion of additional training.

A3.6.3.5. At the conclusion of training, when all requirements of the TG are met, fill-out an MC Form 46 in accordance with paragraph A3.5. Maintain completed TG and associated MC Form 46 in a training folder according to paragraph A3.1.5.

A3.6.3.6. Do not maintain the training guide in the flight evaluation folder.

A3.6.4. Review Procedures:

A3.6.4.1. Instructors and students will review the TG after each training period and discuss training accomplished, problem areas, and immediate goals.

A3.6.4.2. The flight commander or squadron training representative will conduct a monthly review of TGs. This review will be indicated by entering initials and date in the review block of the TG.

A3.6.4.3. The commander or operations officer will review active TGs at least once each calendar quarter and prior to an evaluation. This review will be a separate entry on the TG and will include comments on weak areas and upgrade potential. Indicate review by signing the instructor-trainer block of the training progress record, and enter "quarterly review" in the training period identifier block.

A3.6.4.4. Records of crewmembers, not receiving training (but in an active status), will be reviewed monthly and quarterly as indicated above. If applicable, the statement, "no training accomplished during this period," the reason why, and the projected date when training will resume will be entered on the student's training progress record.

A3.6.5. Disposition of TGs:

- Place completed TGs in MC Form 21 and maintain according to paragraph A3.1.5.
- Formal schools will maintain copies of the aircrew training records on incomplete trainees for 6 months.